

~Pat ent Litterature Abstracts

File 344: Chinese Patents Abs Jan 1985-2006/ Jan

(c) 2006 European Patent Office

File 347: JAPI O Dec 1976-2007/ Dec( Updat ed 080328)

(c) 2008 JPO & JAPI O

File 350: Der went WPI X 1963-2008/ UD=200855

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Set	Items	Description
S1	119174	(AUDI O OR SOUND) (1N) (SI GNAL OR DATA OR INFORMATI ON)
S2	277532	(VI DEO OR STILL OR PI CTURE OR PHOTOGRA PH) (1N) (SI GNAL? OR DATA OR INFORMATI ON OR FRAME? ?)
S3	272854	PACKET? ? OR PACK OR PACKS
S4	59664	(FI XED OR SET OR PRESET OR PREDETERMINED) (1N) LENGTH?
S5	190567	(1 OR ONE OR FI XED) (2N) RATI O
S6	4976913	TI ME OR PERIOD OR PHASE? ? OR DURATI ON? ? OR INTERVAL? ?
S7	461321	S6(3N) (SAME OR EQUAL OR SIMILAR OR IDENTICAL OR EQUIVALENT OR MATCHING)
S8	332592	MOVING( ) PI CTURE? ? OR MPEG? OR VI DEO( ) OBJECT( ) UNI T OR VCBU OR PTS
S9	6995	(P OR B OR PREDICTI VE OR BI DIRECTI ONAL?) (2N) PI CTURE?
S10	17254	AU=(TOM TA, Y? OR TOM TA Y? OR YOSHI NORI (1N) TOM TA OR I SHIZUKA, S? OR I SHIZUKA S? OR SHI GEKI (1N) I SHIZUKA OR UENO, K? OR UENO K? OR KATSUHI KO(1N) UENO OR ONO, Y? OR ONO, Y? OR YOSHI HI -RO(1N) ONO)
S11	23	S10 AND (S1 AND S2)
S12	9	S11 AND (SYNCHRONIZ? OR SYNCHRONIS? OR CORRELAT? OR MULTI PLEX? OR ENCOD???)
S13	26723	S1 AND S2
S14	3476	S3(20N) (S4 OR S5 OR S7)
S15	90	S13 AND S14
S16	32	S15 AND (S8 OR S9)
S17	26	S16 AND (SYNCHRONIZ? OR SYNCHRONIS? OR CORRELAT? OR MULTI PLEX? OR ENCOD???)

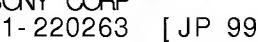
【I2/3, K1】 (Item 1 from File 347)

DI ALCG(R) File 347: JAPI O

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06553212 \*\*Image available\*\*  
ENCODING DEVICE, CAMERA APPARATUS AND RECORDING METHOD

PUB. NO. : 2000-138941 [JP 2000138941 A]  
PUBLISHED: May 16, 2000 (20000516)

INVENTOR(s) :   
  
  


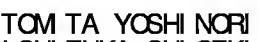
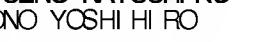
APPLICANT(s) : SONY CORP

APPL. NO. : 11-220263 [JP 99220263]

FILED: August 03, 1999 (19990803)

PRIORITY:  [JP 98237312], JP (Japan), August 24, 1998  
(19980824)

ENCODING DEVICE, CAMERA APPARATUS AND RECORDING METHOD

INVENTOR(s) :   
  
  


ABSTRACT

... TO BE SOLVED: To generate an output in compliance with the MPEG format where an audio signal in relation to a photographed still picture is

added to the still picture.

SOLUTION: A...

...to pick up an image of a still picture and a microphone 16 records an **audio signal** at the same time. The still picture and **audio data** are written in a DRAM 9 via a memory controller 5. The **still picture data** are compressed by an **encoder** /decoder 15 in compliance with the MPEG video format, the **audio data** are compressed by a software of a CPU 12 in compliance with the MPEG audio format, and the DRAM 9 stores **multiplexed data** between the compressed video and **audio data**. In the case of compressing the **video data** in compliance with the MPEG video format, one set of **picture data** are coded to generate an I picture and to generate a P picture so that...

... a frame structure that number of Pictures equivalent to a time shared by the **audio data** is in succession to the I picture. **Multiplexed data** are stored in an external storage medium 11.

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■ 12/3 K2 [Item 2 from file 347] (Japanese app)

DIALOG(R) File 347: JAPI O

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06553211 \*\*Image available\*\*

IMAGE SIGNAL CODER, CAMERA APPARATUS AND RECORDING METHOD

PUB. NO.: 2000-138940 [JP 2000138940 A]

PUBLISHED: May 16, 2000 (20000516)

INVENTOR(s): **TOMITA YOSHINORI**

APPLICANT(s): SONY CORP

APPL. NO.: 11-220262 [JP 99220262]

FILED: August 03, 1999 (19990803)

PRIORITY: [JP 98237311], JP (Japan), August 24, 1998  
(19980824)

INVENTOR(s): **TOMITA YOSHINORI**

#### ABSTRACT

...to pick up an image of a moving picture and a microphone 16 records an **audio signal** at the same time. The moving picture and **audio data** are written in a DRAM 9 via a memory controller 5. The **moving picture data** are compressed by an **encoder** /decoder 15 in compliance with the MPEG video format, the **audio data** are compressed by a software of a CPU 12 in compliance with the MPEG audio format, and the DRAM 9 stores **multiplexed data** between the compressed video and **audio data**. In the case of compressing the **video data** in compliance with the MPEG video format, one set of **picture data** are coded to generate an I picture and to generate a P picture so that...

... a frame structure that one P picture or over is in succession to the I picture. **Multiplexed data** are stored in an external storage medium 11.

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■ 12/3 K3 [Item 3 from file 347]

DIALOG(R) File 347: JAPI O

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02594991 \*\*Image available\*\*

VIDEO SIGNAL RECORDER

PUB. NO.: 63-211891 [JP 63211891 A]  
PUBLISHED: September 02, 1988 (19880902)  
INVENTOR(s): **SHIZUKA SHIGEKI**  
HI RAI JUN  
EZAKI TADASHI  
APPLICANT(s): SONY CORP [000218] (A Japanese Company or Corporation), JP (Japan)  
APPL. NO.: 62-329360 [JP 87329360]  
FILED: December 25, 1987 (19871225)  
JOURNAL: Section: E, Section No. 699, Vol. 12, No. 500, Pg. 109, December 27, 1988 (19881227)

## VIDEO SIGNAL RECORDER

INVENTOR(s): **SHIZUKA SHIGEKI**  
HI RAI JUN  
EZAKI TADASHI

### ABSTRACT

... a high fidelity mode contact F1, a DC bias E1 is added to an input video signal, and the carrier frequency of an FM luminance signal YFM is shifted to a value higher, e.g. about by 400kHz. In this status, an FM sound signal is multiplexed in a trough between an FM luminance and a low frequency band chroma. Further, when...

... fidelity high-definition mode contact F2, a DC bias E2 is added to an input video signal, and the carrier frequency f(sub 0) of an FM luminance signal YFM is further...

12/3, K/4 (Item 1 from file: 350)  
DIALOGUE File 350: Derwent WPI X  
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0016905871 - Drawing available  
WPI ACC NO: 2007-620935/200759  
XRPX Acc No: N2007-483423

Portable electronic apparatus e.g. not ebook personal computer, has video decoder receiving and decoding video data separated by separation unit, and connector for headphone provided on side of computer main unit

Patent Assignee: TOSHIBA KK (TKE)

Inventor: ONO Y; ONO Y I P D T C

Patent Family (3 patents, 38 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
US 20070120829	A1	20070531	US 2006593043	A	20061106	200759 B
EP 1806646	A2	20070711	EP 2006122486	A	20061018	200759 E
JP 2007149008	A	20070614	JP 2005345908	A	20051130	200759 E

Priority Applications (no., kind, date): JP 2005345908 A 20051130

### Patent Details

Number Kind Lan Pg Dwg Filing Notes  
US 20070120829 A1 EN 9 6

EP 1806646 A2 EN

Regional Designated States, Original: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU  
JP 2007149008 A JA 11

Portable electronic apparatus e.g. not ebook personal computer, has video decoder receiving and decoding video data separated by separation unit, and connector for headphone provided on side of computer main unit

Alerting Abstract ... NOVELTY - The apparatus has a separation unit

configured to separate contents data into a **video data** and an **audio data**, and a video decoder configured to receive and decode the **video data** that is separated by the separation unit. A connector for a headphone is provided on...

... is configured to cause the video decoder to stop decoding of a part of the **video data** when a power saving mode is set by a setting unit.... enjoy music using the headphone with the display unit closed, thus stopping the decoding of **video data**, and hence shifting the computer to the power saving mode to reduce the power consumption...

Assignee name & address:

Inventor name & address:

Ono, Yukiya, Intellectual Property Division Toshiba Corporation...

... Ono, Yukiya

Examiner:

#### Original Abstracts:

... be powered by a battery and including a function for reproducing contents data acquired by **multiplexing** and **encoding** **video data** and **audio data**, includes a separation unit (104) which separates the contents data into the **video data** and the **audio data**, a **video decoder** (105) which receives and decodes the **video data** separated by the separation unit, an **audio decoder** (106) which receives and decodes the **audio data** separated by the separation unit, a setting unit (101) which sets a power saving mode in which only the **audio data** included in the contents data is reproduced, and a power save control unit (102) which causes the **video decoder** to stop decoding of part of the **video data** when the power saving mode is set by the setting unit, the part of the **video data** being for use other than menu display...

... be powered by a battery and including a function for reproducing contents data acquired by **multiplexing** and **encoding** **video data** and **audio data**, includes a separation unit which separates the contents data into the **video data** and the **audio data**, a **video decoder** which receives and decodes the **video data** separated by the separation unit, an **audio decoder** which receives and decodes the **audio data** separated by the separation unit, a setting unit which sets a power saving mode in which only the **audio data** included in the contents data is reproduced, and a power save control unit which causes the **video decoder** to stop decoding of part of the **video data** when the power saving mode is set by the setting unit, the part of the **video data** being for use other than menu display.

#### Claims:

... be powered by a battery and including a function for reproducing contents data acquired by **multiplexing** and **encoding** **video data** and **audio data**, characterized by **comprising**: separation means (104) for separating the contents data into the **video data** and the **audio data**; **video decoding means** (105) for receiving and decoding the **video data** separated by the separation means; **audio decoding means** (106) for receiving and decoding the **audio data** separated by the separation means; setting means (101) for setting a power saving mode in which only the **audio data** included in the contents data is reproduced; and power save control means (102) for causing the **video decoding means** to stop decoding of part of the **video data** when the power saving mode is set by the setting means, the part of the **video data** being for use other than menu display...

... be powered by a battery and including a function for reproducing contents data acquired by **multiplexing** and **encoding** **video data** and **audio data**, comprising: a separation unit configured to separate the contents data into the **video data** and the **audio data**; a **video decoder** configured to receive and decode the **video data** separated by the separation unit; an **audio decoder** configured to receive and decode the

**audio data** separated by the separation unit; a setting unit configured to set a power saving mode in which only the **audio data** included in the contents data is reproduced; and a power save control unit configured to cause the video decoder to stop decoding of part of the **video data** when the power saving mode is set by the setting unit, the part of the **video data** being for use other than menu display.

**12/3, K/5 (Item 2 from file: 350)**  
DIALOG(R) File 350: Derwent WPI X  
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0010713219 - Drawing available  
WPI ACC NO: 2001-324054/200134

XRXPX Acc No: N2001-233621

**Digital audio / video data synchronization deciding procedure in digital audio / video data communication system** involves comparing received data and new synchronous code maintained in receiver

Patent Assignee: KOKUSAI DENKI KK (KOKZ)

Inventor: **TOM TAY**

Patent Family (1 patents, 1 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
JP 2001086107	A	20010330	JP 1999258960	A	19990913	200134 B

Priority Applications (no., kind, date): JP 1999258960 A 19990913

Patent Details

Number	Kind	Lang	Pg	Dwg	Filing Notes
JP 2001086107	A	JA	6	4	

**Digital audio / video data synchronization deciding procedure in digital audio / video data communication system** involves comparing received data and new synchronous code maintained in receiver

Original Titles:

METHOD FOR ESTABLISHING DIGITAL VIDEO DATA SYNCHRONIZATION AND DIGITAL VIDEO DATA COMMUNICATION SYSTEM

Inventor: **TOM TAY**

**Alerting Abstract** . . . receives the transmitted data and compares with the maintained new synchronous code to establish the **synchronization**.  
DESCRIPTION - An INDEPENDENT CLAIM is also included for the digital **audio / video data** communication system..

... USE - Used in the digital **audio / video data** communication system..

... ADVANTAGE - **Synchronization** time is shortened and efficient **synchronization** is attained, by maintaining new synchronous code in the receiver side...

... DESCRIPTION OF DRAWINGS - The figure shows the block diagram of the components of digital **audio / video data** communication system

Assignee name & address:

Inventor name & address:

**TOM TAY YASUYUKI**

Examiner:

**12/3, K/6 (Item 3 from file: 350)**  
DIALOG(R) File 350: Derwent WPI X  
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0009908871 - Drawing available

WPI ACC NO: 2000-208188/200019

XRPX Acc No: N2000-155216

**Electronic digital video camera having 'MPEG system encoder for multi pl exing and recording photographic 'still' or moving pictures, together with associated audio signals**

Patent Assignee: SONY CORP (SONY)

Inventor: ISHIZUKA S; CNOY; TOMTA Y; UENO K; ISHITSUKA S; TODA Y

Patent Family (11 patents, 29 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
EP 982950	A2	20000301	EP 1999306486	A	19990817	200019 B
CN 1246644	A	20000308	CN 1999118124	A	19990824	200030 E
JP 2000138940	A	20000516	JP 1999220262	A	19990803	200032 E
JP 2000138941	A	20000516	JP 1999220263	A	19990803	200032 E
KR 2000017457	A	20000325	KR 199934959	A	19990823	200104 E
US 6690881	B1	20040210	US 1999378585	A	19990820	200413 E
US [REDACTED]	A1	20040520	US 1999378585	A	19990820	200434 E
			US 2003713130	A	20031114	
CN 1700741	A	20051123	CN 1999118124	A	19990824	200622 E
			CN 200510077975	A	19990824	
CN 1700758	A	20051123	CN 1999118124	A	19990824	200622 E
			CN 200510077977	A	19990824	
CN 1223175	C	20051012	CN 1999118124	A	19990824	200650 E
KR 616262	B1	20060828	KR 199934959	A	19990823	200714 E

Priority Applications (no., kind, date): JP [REDACTED] A 19980824; JP [REDACTED] A 19980824

#### Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
EP 982950	A2	EN	20	7		
Regional Designated States, Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI						
JP 2000138940	A	JA	12			
JP 2000138941	A	JA	13			
KR 2000017457	A	KO		7		
US 20040096114	A1	EN			Division of application	US 1999378585
					Division of patent	US 6690881
CN 1700741	A	ZH			Division of application	CN 1999118124
CN 1700758	A	ZH			Division of application	CN 1999118124
KR 616262	B1	KO			Previously issued patent	KR 2000017457

**Electronic digital video camera having 'MPEG system encoder for multi pl exing and recording photographic 'still' or moving pictures, together with associated audio signals**

#### Original Titles:

... Electronic video camera comprising an MPEG encoder

...

... ENCODING DEVICE, CAMERA APPARATUS AND RECORDING METHOD  
Inventor: ISHIZUKA S ...

... TOMTA Y ...

... UENO K

Alerting Abstract ... NOVELTY - The camera **encodes** (24) video signals from a photographing device into MPEG format or equivalent and similarly

**encodes** (26) input audio signals. The camera generates 'I' (Intra-coded) video pictures for **MPEG encoding**. In addition, a generator (27) produces 'P' (predictive-coded) and/or 'B' (Bi-directionally predictive...).

... moving vectors of all macro-blocks are zero, and chronologically preceding pictures are copied for **encoding**. System controlling apparatus (28) **multiplexes** the 'I', 'P' or 'B' **picture information** together with the **MPEG-encoded audio data**, outputting a **multiplexed** data stream for recording externally, e.g. on floppy disk or in semiconductor memory, etc. USE - For digitally recording still/moving video pictures, together with associated audio signals, using compression-**encoding** in the **MPEG** system for moving pictures, or in the **JPEG** (Joint Photographic Experts Group...).

... ADVANTAGE - Simple camera apparatus/recording method, enabling video/associated **audio data** to be **multiplexed**/recorded, without unduly increasing hardware required, or requiring difficult-to-obtain software, producing **encoded** output data easily used by personal computer apparatus, and enabling photographed moving pictures to be...

... DESCRIPTION OF DRAWINGS - The drawing shows in block diagram form an example of **encoding** apparatus in accordance with the inventive system. Title Terms.../Index Terms/Additional Words: **ENCODE**; ...

... **MULTI PLEX**;

Assignee name & address:

Inventor name & address:

... **UENO K** ...

... **Tomita, Yoshi nori** ...

... **Ishizuka, Shi geki** ...

... **Ueno, Kat suhi ko** ...

... **Ono, Yoshi hiro** ...

... **TOM TA YOSHI NORI** ...

... **TOM TA YOSHI NORI** ...

... **I SHI ZUKA SHI GEKI** ...

... **UENO KATSUHI KO** ...

... **TOM TA Y** ...

... **I SHI ZUKA S** ...

... **UENO K** ...

... **Tomita, Yoshi nori** ...

... **Ishizuka, Shi geki** ...

... **Ueno, Kat suhi ko** ...

... **Ono, Yoshi hiro** ...

... **Tomita, Yoshi nori** ...

... **Ishizuka, Shi geki** ...

... **Ueno, Kat suhi ko** ...

... Ono, Yoshihiro

Examiner:

**Original Abstracts:**

A camera apparatus **encodes** a **video signal** received from a photographing means in MPEG video format or equivalent format and **encodes** an **audio signal** received from an audio inputting means in MPEG audio format or equivalent format. The camera comprises an I picture generating means (24) for **encoding** the **video signal** received from the photographing means corresponding to an intra-frame **encoding** process so as to generate an I picture in the MPEG video format or equivalent...

... all macro blocks thereof are zero and the chronologically preceding picture is copied as an **encoded** picture. An audio **encoder** (26) **encodes** the **audio signal** received from the audio inputting means in the MPEG audio format or equivalent format so as to generate MPEG **audio data**. A controlling means (28) **multiplexes** the I picture, the P picture or the B picture, and the MPEG **audio data** so as to generate the **multiplexed** data...

... A camera apparatus for **encoding** a **video signal** received from a photographing means in MPEG video format or equivalent format, **encoding** an **audio signal** received from an audio inputting means in MPEG audio format or equivalent format, **multiplexing** the **encoded** MPEG **video signal** and the **encoded** MPEG **audio signal**, storing the **multiplexed** data to a memory means is disclosed, that comprises an I picture generating means for **encoding** the **video signal** received from the photographing means corresponding to an intra-frame **encoding** process so as to generate an I picture in the MPEG video format or equivalent format, and a controlling means for controlling a storing process of the **multiplexed** data to the memory means, wherein said controlling means generates a P picture or a...

... all macro blocks thereof are 0 and the chronologically preceding picture is copied as an **encoded** picture, wherein said controlling means **encodes** the **audio signal** received from the audio inputting means in the MPEG audio format or equivalent format so as to generate MPEG **audio data**, and wherein said controlling means **multiplexes** the I picture, the P picture or the B picture, and the MPEG **audio data** so as to generate the **multiplexed** data...

... A camera apparatus for **encoding** a **video signal** received from a photographing unit in MPEG video format or equivalent format, **encoding** an **audio signal** received from an audio inputting unit in MPEG audio format or equivalent format, **multiplexing** the **encoded** MPEG **video signal** and the **encoded** MPEG **audio signal**, storing the **multiplexed** data to a memory is disclosed, that comprises an I picture generating unit for **encoding** the **video signal** received from the photographing unit corresponding to an intra-frame **encoding** process so as to generate an I picture in the MPEG video format or equivalent format, and a controlling unit for controlling a storing process of the **multiplexed** data to the memory, wherein said controlling unit generates a P picture or a B...

... all macro blocks thereof are 0 and the chronologically preceding picture is copied as an **encoded** picture, wherein said controlling unit **encodes** the **audio signal** received from the audio inputting unit in the MPEG audio format or equivalent format so as to generate MPEG **audio data**, and wherein said controlling unit **multiplexes** the I picture, the P picture or the B picture, and the MPEG **audio data** so as to generate the **multiplexed** data.

**Caims:**

A camera apparatus for **encoding** a **video signal** received from a photographing means in MPEG video format or equivalent format, **encoding** an **audio signal** received from an audio inputting means in MPEG audio format or equivalent format, **multiplexing** the **encoded** MPEG **video signal** and the **encoded** MPEG **audio signal**, storing the **multiplexed**

data to memory means, the camera apparatus comprising: a picture generating means for **encoding** the **video signal** received from the photographing means corresponding to an intra-frame **encoding** process so as to generate an I picture in the MPEG video format or equivalent format; and controlling means for controlling a storing process of the **multiplexed** data to the memory means, wherein said controlling means generates a P picture or a...

... all macro blocks thereof are 0 and the chronologically preceding picture is copied as an **encoded** picture, wherein said controlling means **encodes** the **audio signal** received from the audio inputting means in the MPEG audio format or equivalent format so as to generate **MPEG audio data**, and wherein said controlling means **multiplexes** the I picture, the P picture or the B picture, and the **MPEG audio data** so as to generate the **multiplexed** data...

... What is claimed is: <b>1</b>. A camera apparatus for **encoding** a **video signal** received from photographing means in MPEG video format or equivalent format, **encoding** an **audio signal** received from audio inputting means in MPEG audio format or equivalent format, **multiplexing** the **encoded** MPEG **video signal** and the **encoded** MPEG **audio signal**, storing the **multiplexed** data to memory means, the camera apparatus comprising: a picture generating means for **encoding** the **video signal** received from the photographing means corresponding to an intra-frame **encoding** process so as to generate an I picture in the MPEG video format or equivalent format; and controlling means for controlling a storing process of the **multiplexed** data to the memory means, wherein said controlling means generates a P picture or a...

... all macro blocks thereof are 0 and the chronologically preceding picture is copied as an **encoded** picture, wherein said controlling means **encodes** the **audio signal** received from the audio inputting means in the MPEG audio format or equivalent format so as to generate **MPEG audio data**, and wherein said controlling means **multiplexes** the I picture, the P picture or the B picture, and the **MPEG audio data** so as to generate the **multiplexed** data...

... What is claimed is: 1. A camera apparatus for **encoding** a **video signal** received from photographing means in MPEG video format or equivalent format, **encoding** an **audio signal** received from audio inputting means in MPEG audio format or equivalent format, **multiplexing** the **encoded** MPEG **video signal** and the **encoded** MPEG **audio signal**, storing the **multiplexed** data to memory means, the camera apparatus comprising: a picture generating means for **encoding** the **video signal** received from the photographing means corresponding to an intra-frame **encoding** process so as to generate an I picture in the MPEG video format or equivalent format; and controlling means for controlling a storing process of the **multiplexed** data to the memory means, wherein said controlling means generates a P picture or a...

... all macro blocks thereof are 0 and the chronologically preceding picture is copied as an **encoded** picture, wherein said controlling means **encodes** the **audio signal** received from the audio inputting means in the MPEG audio format or equivalent format so as to generate **MPEG audio data**, wherein said controlling means **multiplexes** the I picture, the P picture or the B picture, and the **MPEG audio data** so as to generate the **multiplexed** data; and, wherein the **multiplexed** data is composed of a plurality of packs, the top pack containing the **MPEG audio data** and the data of the I picture of the **MPEG video data**.

0006241876 - Drawing available

WPI ACC NO: 1993-032461/199304

Related WPI Acc No: 1997-093938

Digital video-audio recording and reproducing appts. - records digitised video and audio signals on recording medium at fixed amt. of information per unit time, maintaining sum of information amt. of video and audio signals constant.

Patent Assignee: MITSUBISHI DENKI KK (MTQ); MITSUBISHI ELECTRIC CORP (MTQ)

Inventor: HONGO K; ONISHI K; ONO Y; SUGIYAMA K

Patent Family (6 patents, 2 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
JP 4360481	A	19921214	JP 1991136446	A	19910607	199304 B
US 5309290	A	19940503	US 1992894575	A	19920605	199417 ETAB
US 5434716	A	19950718	US 1992894575	A	19920605	199534 E

Priority Applications (no., kind, date): JP 1991136446 A 19910607

#### Patent Details

Number	Kind	Language	Pg	Dwg	Filing	Notes
JP 4360481	A	JA	15			
US 5309290	A	EN	24			
US 5434716	A	EN	25		Continuation of application	US

#### Original Titles:

... Apparatus for variably compressing video and audio information within constant data block...

... Apparatus for controlling a sum of varying information amount of a video signal and a varying information amount of an audio signal so that the sum is within a predetermined amount of data range...

... Apparatus for controlling a sum of a varying information amount of a video signal and a varying information amount of an audio signal so that the sum is within a predetermined amount of data range.

**Alerting Abstract** ... The appts. includes an encoder for compressing and encoding a digitised video signal with a variable redn. rate. A second encoder compresses and encodes a digitised audio signal with a second variable redn. rate. A controller controls the two redn. rates in the two encoders so that a sum of an information amt. of the encoded video signal and an information amt. of the encoded audio signal is maintained constant. The controller controls the redn. rates in the encoders so that when the information amt. of the encoded video signal is smaller than a reserved video information amount...

... The encoded audio signal is recorded in a recording area originally provided on the recording medium for recording the encoded video signal, so that when the information amt. of the encoded audio signal is smaller than a reserved audio information amount, the encoded video signal is recorded in a recording area originally provided on the recording medium for recording the encoded audio signal.

... ADVANTAGE - High-efficiency encoding. Can simultaneously record video and multi-channel audio signals. Errors occurring at ends of recording

**Equivalent Alerting Abstract** ... The appts. includes an encoder for compressing and encoding a digitised video signal with a variable redn. rate. A second encoder compresses and encodes a digitised audio signal with a second variable redn. rate. A controller controls the two redn. rates in the two encoders so that a sum of an information amt. of the encoded video signal and an information amt. of the encoded

audio signal is maintained constant. The controller controls the reduction rates in the encoders so that when the information amt. of the encoded video signal is smaller than a reserved video information amount...

... The encoded audio signal is recorded in a recording area originally provided on the recording medium for recording the encoded video signal, so that when the information amt. of the encoded audio signal is smaller than a reserved audio information amount, the encoded video signal is recorded in a recording area originally provided on the recording medium for recording the encoded audio signal.

... ADVANTAGE - High-efficiency encoding. Can simultaneously record video and multi-channel audio signals. Errors occurring at ends of recording

Assignee name & address:

Inventor name & address:

... Ono, Yukari ...

... Ono, Yukari ...

... Ono, Yukari ...

... Ono, Yukari ...

... Ono, Yukari

Examiner:

Original Abstracts:

A digital video/audio recording and reproducing apparatus comprising a video signal high-efficiency encoder having a variable reduction rate, an audio signal high-efficiency encoder having a variable reduction rate, and a controller for controlling the reduction rates in both of the high-efficiency encoders. The reduction rates in both of the high-efficiency encoders are controlled in such a manner that the sum of the information amount of the video signal and that of the audio signal, after high-efficiency encoding, is maintained constant. When recording multi-channel audio signals, the reduction rates in both of the high-efficiency encoders are controlled according to the number of audio signal channels to be recorded. The high frequency components of the high-efficiency encoded video and audio signals are recorded at the end portions of recording tracks on a magnetic tape, while the...

... A digital video/audio recording and reproducing apparatus comprising a video signal high-efficiency encoder having a variable reduction rate, an audio signal high-efficiency encoder having a variable reduction rate, and a controller for controlling the reduction rates in both of the high-efficiency encoders. The reduction rates in both of the high-efficiency encoders are controlled in such a manner that the sum of the information amount of the video signal and that of the audio signal, after high-efficiency encoding, is maintained constant. When recording multi-channel audio signals, the reduction rates in both of the high-efficiency encoders are controlled according to the number of audio signal channels to be recorded. The high frequency components of the high-efficiency encoded video and audio signals are recorded at the end portions of recording tracks on a magnetic tape, while the low frequency components thereof are...

... A digital video/audio recording and reproducing apparatus comprising a video signal high-efficiency encoder having a variable reduction rate, an audio signal high-efficiency encoder having a variable reduction rate, and a controller for controlling the reduction rates in both of the high-efficiency encoders. The reduction rates in both of the high-efficiency encoders are controlled in such a manner that the

sum of the information amount of the video signal and that of the audio signal, after high-efficiency encoding, is maintained constant. When recording multi-channel audio signals, the reduction rates in both of the high-efficiency encoders are controlled according to the number of audio signal channels to be recorded. The high frequency components of the high-efficiency encoded video and audio signals are recorded at the end portions of recording tracks on a magnetic tape, while the low frequency components thereof are recorded in the central portion...

... A digital video/audio recording and reproducing apparatus comprising a video signal high-efficiency encoder having a variable reduction rate, an audio signal high-efficiency encoder having a variable reduction rate, and a controller for controlling the reduction rates in both of the high-efficiency encoders. The reduction rates in both of the high-efficiency encoders are controlled in such a manner that the sum of the information amount of the video signal and that of the audio signal, after high-efficiency encoding, is maintained constant. When recording multi-channel audio signals, the reduction rates in both of the high-efficiency encoders are controlled according to the number of audio signal channels to be recorded. The high frequency components of the high-efficiency encoded video and audio signals are recorded at the end portions of recording tracks on a magnetic tape, while the low frequency components thereof are recorded in the central portion of the recording tracks...

... A digital video/audio recording and reproducing apparatus comprising a video signal high-efficiency encoder having a variable reduction rate, an audio signal high-efficiency encoder having a variable reduction rate, and a controller for controlling the reduction rates in both of the high-efficiency encoders. The reduction rates in both of the high-efficiency encoders are controlled in such a manner that the sum of the information amount of the video signal and that of the audio signal, after high-efficiency encoding, is maintained constant. When recording multi-channel audio signals, the reduction rates in both of the high-efficiency encoders are controlled according to the number of audio signal channels to be recorded. The high frequency components of the high-efficiency encoded video and audio signals are recorded at the end portions of recording tracks on a magnetic tape, while the low frequency components thereof are recorded in the central portion of the recording tracks.

**Claims:**

... from the recording medium at a fixed amount of information per unit time, comprising: first encoding means for compressing and encoding a digitized video signal with a first variable reduction rate; second encoding means for compressing and encoding a digitized audio signal with a second variable reduction rate; and control means for controlling the first and second reduction rates in said first and said second encoding means so that a sum of an information amount of the encoded video signal and an information amount of the encoded audio signal is maintained constant. The digital video/audio recording and reproducing apparatus of claim 1, wherein said control means controls the first and second reduction rates in said first and said second encoding means so that when the information amount of the encoded video signal is smaller than a reserved video information amount, the encoded audio signal is recorded in a recording area originally provided on the recording medium for recording the encoded video signal, and so that when the information amount of the encoded audio signal is smaller than a reserved audio information amount, the encoded video signal is recorded in a recording area originally provided on the recording medium for recording the encoded audio signal.

... An apparatus comprising: first encoding means for compressing and encoding a video signal with a first variable reduction rate;

second encoding means for compressing and encoding an audio signal with a second variable reduction rate; and control means for controlling the first and second reduction rates in said first and said second encoding means so that a sum of an information amount of the encoded video signal and an information amount of the encoded audio signal is maintained constant.

... A digital video/audio reproducing apparatus for reproducing encoded signals obtained by encoding a digitized video signal and a digitized audio signal at a fixed amount of information per unit time to reproduce an original video signal and an original audio signal which were encoded by a video encoder and an audio encoder such that a sum of a varying information amount of the encoded digitized video signal and a varying information amount of the encoded digitized audio signal was maintained constant and such that the varying information amount of the encoded digitized video signal output from the video encoder was dependent on an output of the audio encoder.

... apparatus for compressing and recording plural types of digital signals on a recording medium comprising: encoding means, including at least first encoding means and second encoding means, for compressing and encoding the plural types of digital signals, input within an unit time, each with a variable reduction rate; recording means for recording the plural types of encoded digital signals on the recording medium and control means for controlling the variable reduction rate of each of the plural types of digital signals in said encoding means so that a sum of a varying information amount of the plural types of encoded digital signals is maintained within a predetermined amount of data range; said control means controlling said first encoding means such that a variable amount of a first type of digital signals output from said first encoding means is dependent on an output of said second encoding means.

... A digital video/audio encoding apparatus, comprising: an encoder, including a video encoder and an audio encoder, encoding a digitized video signal and a digitized audio signal at a fixed amount of information per unit time; and a controller, controlling said encoder such that a sum of a varying information amount of the encoded digitized video signal and a varying information amount of the encoded digitized audio signal is maintained constant; said controller controlling said video encoder such that a variable amount of the digitized video signal output from said video encoder is dependent on an output of said audio encoder.>

12/3, K/8 (Item 5 from file: 350)  
DIALOG(R) File 350: Derwent WPI X  
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0006071682 - Drawing available  
WPI ACC NO: 1992-309939/199238  
XRPX Acc No: N1992-237246

Digital signal recording method - adding error correction code to each digital video and audio signal and recording both encoded data on recording medium

Patent Assignee: MITSUBISHI DENKI KK (MTQ); MITSUBISHI ELECTRIC CORP (MTQ)

Inventor: HONGO K; ONISHI K; ONISHI T; ONO Y; SUGIYAMA K

Patent Family (6 patents, 5 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
EP 503859	A2	19920916	EP 1992301944	A	19920306	199238 B
JP 4282983	A	19921008	JP 199146873	A	19910312	199247 E

JP 5153548	A	19930618	JP 1991310464	A	19911126	199329	E
EP 503859	A3	19930113	EP 1992301944	A	19920306	199346	E
EP 503859	B1	19980121	EP 1992301944	A	19920306	199808	E
DE 69224091	E	19980226	DE 69224091	A	19920306	199814	E
			EP 1992301944	A	19920306		

Priority Applications (no., kind, date): JP 199146873 A 19910312; JP 1991310464 A 19911126

#### Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
EP 503859	A2	EN	22	13		
Regional Designated	States, Original:				DE FR GB NL	
JP 4282983	A	JA	10			
EP 503859	A3	EN				
EP 503859	B1	EN	24	13		
Regional Designated	States, Original:				DE FR GB NL	
DE 69224091	E	DE			Application EP 1992301944	
					Based on OPI patent EP 503859	

... adding error correction code to each digital video and audio signal and recording both encoded data on recording medium

**Alerting Abstract** ... The digital recording method comprises adding an error correction code to each of a digital **video signal** and an **audio signal**. Both the **encoded** data are recorded on a recording medium with the **encoded audio data** superimposed in the **encoded video data** or with part of the **encoded video data** replaced by the **encoded audio data**.

...

... region for replacing recording is variable according to the number of channels of the digital **audio signal**. The error correcting capability for the **video signal** is the same as that for the **audio signal** and the redundancy in **encoding** is small

**Title Terms**.../Index Terms/Additional Words: **ENCODE**;

Assignee name & address:

Inventor name & address:

... Ono, Yukari, Denshi Shohin Kaihatsu Kenkyusho, Mtsubishi Denki Kabushiki Kaisha, 1 Babazusho, Nagaokakyo-Shi, Kyoto-Fu ...

... Ono, Yukari, Denshi Shohin Kaihatsu Kenkyusho, Mtsubishi Denki Kabushiki Kaisha, 1 Babazusho, Nagaokakyo-Shi, Kyoto-Fu

Examiner:

**Original Abstracts:**

... signal recording method wherein an error correction code is added to each of a digital **video signal** and a digital **audio signal**, and both the **encoded** data are recorded on a recording medium with the **encoded audio data** superimposed on the **encoded video data** or with part of the **encoded video data** is replaced by the **encoded audio data**. The region for superimposing recording or the region for replacing recording is variable according to the number of channels of the digital **audio signal**. The error correcting capability for the **video signal** is substantially the same as that for the **audio signal**, and the redundancy in **encoding** is small. Audio signals of any number of channels can be recorded without changing the number...

**Claims:**

1. A digital signal recording method for recording a digital **video signal** and a digital **audio signal** on a recording medium comprising the steps of: encoding the digital **video signal** to obtain **encoded video data**; encoding the digital **audio signal** to obtain **encoded audio data**; obtaining a **video data error**

correction code for correcting an error caused by encoding the digital video signal ; obtaining an audio data error correction code for correcting an error caused by encoding the digital audio signal ; adding the video data error correction code to the encoded video data to obtain video data with correction code and recording the video data with correction code on the recording medium ; and adding the audio data error correction code to the encoded audio data to obtain audio data with correction code and recording the audio data with correction code on the recording medium by superimposing it on the video data with correction code.

... The digital recording method comprises adding an error correction code to each of a digital video signal and an audio signal. Both the encoded data are recorded on a recording medium with the encoded audio data superimposed in the encoded video data or with part of the encoded video data replaced by the encoded audio data.

... region for replacing recording is variable according to the number of channels of the digital audio signal. The error correcting capability for the video signal is the same as that for the audio signal and the redundancy in encoding is small.

... 1. A digital signal recording method for recording a digital video signal and a digital audio signal on a recording medium comprising the steps of: encoding the digital video signal to obtain encoded video data ; encoding the digital audio signal to obtain encoded audio data ; obtaining a video data error correction code for correcting an error caused by encoding the digital video signal ; obtaining an audio data error correction code for correcting an error caused by encoding the digital audio signal ; adding the video data error correction code to the encoded video data to obtain video data with correction code and recording the video data with correction code on the recording medium ; and adding the audio data error correction code to the encoded audio data to obtain audio data with correction code and recording the audio data with correction code on the recording medium by superimposing it on the video data with correction code ; wherein the recording region where the audio data with correction code is recorded with a superimposing relation to the video data with correction code is variable, depending on the number of channels of the digital audio signal.

12/3, K/9 (Item 6 from file: 350)  
DIALOG(R) File 350; Derwent WPI X  
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0005371675

WPI ACC NO: 1990-371632/199050

XRPX Acc No: N1990-283398

Signal encoder for coding-decoding audio - video signal - decides order of common signal processing according to phase relation between transmitting and receiving frame No Abstract Dwg 1/8

Patent Assignee: FUJITSU LTD (FULT)

Inventor: SATO K; TOMITA Y; UMAGAMI S

Patent Family (1 patent, 1 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
JP 2268021	A	19901101	JP 198990035	A	19890410	199050 B

Priority Applications (no., kind, date): JP 198990035 A 19890410

Signal encoder for coding-decoding audio-video signal -

Original Titles:

SIGNAL ENCODER

... Inventor: TOM TAY

Title Terms.../Index Terms/Additional Words: ENCODE;

Assignee name & address:

Inventor name & address:

... TOM TAY YOSHIIRO

Examiner:

^ 17/3, K/1 (Item 1 from file: 347) (bad date)

DIALOG(R) File 347: JAPICO

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08606446 \*\*Image available\*\*

INFORMATION RECORDING MEDIUM WITH AV STREAM CONTAINING GRAPHIC DATA  
RECORDED THEREON, REPRODUCING METHOD AND REPRODUCING APPARATUS

PUB. NO.: 2005-354706 [JP 2005354706 A]

PUBLISHED: December 22, 2005 (20051222)

INVENTOR(s): KANG MAN-SEOK

JUNG KI L-SOO

TEI GENKEN

APPLICANT(s): SAMSUNG ELECTRONICS CO LTD

APPL. NO.: 2005-170062 [JP 2005170062]

FILED: June 09, 2005 (20050609)

PRIORITY: 04 200442657 [KR 200442657], KR (Korea) Republic of, June 10, 2004 (20040610)

04 200447624 [KR 200447624], KR (Korea) Republic of, June 24, 2004 (20040624)

ABSTRACT

... TO BE SOLVED: To provide an information recording medium on which an AV stream comprising video data, audio data and graphic data is multiplexed into MPEG-2 transport stream format and recorded, a reproducing apparatus and a reproducing method.

SOLUTION: An...

... source packet, at least one audio source packet and at least one additional data source packet, and the additional data source packet is disposed after the video source packet having the same output time information. Thus, graphic data corresponding to video data are displayed together in spite of a jump of a reproducing position.

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17/3, K/2 (Item 2 from file: 347)

DIALOG(R) File 347: JAPICO

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07709569 \*\*Image available\*\*

INFORMATION RECORDING MEDIUM, INFORMATION RECORDING APPARATUS AND METHOD, INFORMATION REPRODUCING APPARATUS AND METHOD, INFORMATION RECORDING AND REPRODUCING APPARATUS AND METHOD, COMPUTER PROGRAM FOR RECORDING OR REPRODUCTON CONTROL, AND STRUCTURE OF DATA INCLUDING CONTROL SIGNAL

PUB. NO.: 2003-203462 [JP 2003203462 A]

PUBLISHED: July 18, 2003 (20030718)

INVENTOR(s): KODA KENJI

TAKAKUWA NOBUYUKI  
SAWABE TAKAO  
KANEE TORU  
NAKAHARA YOSHI NORI  
FUKUDA YASUKO  
IMAMURA AKIRA  
KASUYA TAKAYUKI

APPLICANT(s): PIONEER ELECTRONIC CORP  
APPL. NO.: 2001-401694 [JP 2001401694]  
FILED: December 28, 2001 (20011228)

ABSTRACT

PROBLEM TO BE SOLVED: To **multiplexedly** record a plurality of programs or the like transmitted by transport streams in compliance with the **MPEG 2** on an optical disk or the like in the lump and to be able...

... a plurality of partial streams each comprising a series of contents information items such as **video information** and **audio information** are recorded in **multiplex** on an information recording medium in the unit of packets. The information recording medium includes: files for storing object data comprising a plurality of packets each including segments of the **audio information** or the **video information**; and files for storing information specifying a reproduction sequence of object data and table information or the like indicating, for each of partial streams, **packet identification numbers** uniquely provided among a plurality of packets **multiplexed** at the **same time**.

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DI A LOG(R) File 347: JAPICO  
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07705169 \*\*Image available\*\*  
INFORMATION RECORDING MEDIUM, APPARATUS AND METHOD, INFORMATION REPRODUCING APPARATUS AND METHOD, INFORMATION RECORDING/REPRODUCING APPARATUS AND METHOD, COMPUTER PROGRAM FOR CONTROL OF RECORDING OR REPRODUCING, AND DATA STRUCTURE INCLUDING CONTROL SIGNAL

PUB. NO.: 2003-199049 [JP 2003199049 A]  
PUBLISHED: July 11, 2003 (20030711)  
INVENTOR(s): KODA KENJI  
TAKAKUWA NOBUYUKI  
SAWABE TAKAO  
KANEE TORU  
NAKAHARA YOSHI NORI  
FUKUDA YASUKO  
IMAMURA AKIRA  
KASUYA TAKAYUKI  
APPLICANT(s): PIONEER ELECTRONIC CORP  
APPL. NO.: 2001-401660 [JP 2001401660]  
FILED: December 28, 2001 (20011228)

ABSTRACT

PROBLEM TO BE SOLVED: To record in an optical disk, etc., collectively and in a **multiplex** way a plurality of programs, etc., subjected to the transmission by the transport stream of an **MPEG2**, etc., as to make reproducible comparatively easily the desired ones of them

SOLUTION: In an information recording medium there is recorded in a **multiplex** way by the packet the whole stream including a plurality of partial streams constituted respectively out of a series of pieces of content **information** comprising **video** and **audio informations**, etc. In

the first region of the information recording medium there is...

... data comprising a plurality of packets each of which stores the piece of video or **audio information**, and in the different second region ther eof from the first region, there are recorded information...

... sequence of the object data, an information for defining the correspondence of the plurality of **packets** to the plurality of partial-streams which are **multiplexed** at the **same time** -instant, and the like.

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**17/3, K/4 (Item 4 from file: 347)**  
DI ALOG(R) Fi le 347: JAPI O  
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07705168 \*\*Image avai lable\*\*

INFORMATI ON RECORDI NG MEDI UM, APPARATUS AND METHOD, INFORMATI ON REPRODUCI NG APPARATUS AND METHOD, INFORMATI ON RECORDI NG/REPRODUCI NG APPARATUS AND METHOD, COMPUTER PROGRAM FOR CONTROL OF RECORDI NG OR REPRODUCI NG, AND DATA STRUCTURE INCLUDI NG CONTROL SI GNAL

PUB. NO.: 2003-199048 [JP 2003199048 A]  
PUBLI SHED: July 11, 2003 (20030711)

INVENTOR(s): KODA KENJI  
TAKAKUWA NOBUYUKI  
SAWABE TAKAO  
KANEE TORU  
NAKAHARA YOSHI NORI  
FUKUDA YASUKO  
IMAMURA AKI RA  
KASUYA TAKAYUKI

APPLI CANT(s): PI ONEER ELECTRONI C CORP  
APPL. NO.: 2001-401628 [JP 2001401628]  
FILED: December 28, 2001 (20011228)

#### ABSTRACT

... TO BE SOLVED: To so record in an optical disk, etc., collectively and in a **multiplex** way a plurality of programs, etc., subjected to the transmission by the transport stream of an **MPEG2**, etc., as to make reproducible comparably easily the desired ones of them

SOLUTI ON: In an information recording medium there is recorded in a **multiplex** way by the packet the whole stream including a plurality of partial-streams constituted respectively out of a series of pieces of content **information** comprising **video** and **audio information**, etc. The information recording medium has a file for storing therein object data comprising a plurality of packets each of which stores the piece of video or **audio information**, and further, has a file for storing therein the information for specifying the reproducing sequence...

... the plurality of packets to the plurality of partial-streams wherein this information is not **multiplexed** by the **packet**, and is identical with the information **multiplexed** at the **same time** -instant as the object data.

COPYRI GHT: (C) 2003, JPO

**^ 17/3, K/5 (Item 5 from file: 347) (Japanese prior app)**  
DI ALOG(R) Fi le 347: JAPI O  
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06414061 \*\*Image available\*\*  
RECORDING AND REPRODUCING DEVICE, RECORDING AND REPRODUCING METHOD AND  
SERVED MEDIUM

PUB. NO.: [JP 11355719 A]  
PUBLISHED: December 24, 1999 (19991224)  
INVENTOR(s): HAMADA TOSHI M CHI  
TAKAHASHI TAKAO  
M ZUFUJI TARO  
NAGATOKU KOI CHI  
APPLICANT(s): SONY CORP  
APPL. NO.: 10-157522 [JP 98157522]  
FILED: June 05, 1998 (19980605)

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide an output of an excellent audio signal synchronously with an image even when compressed video data are used and reproduced at a high speed.

SOLUTION: A multiplex processing section 14 multiplexes a packet of audio data with a presentation time stamp PTS equivalent to a time between a PTS of an I picture and a PTS of a succeeding picture so that the packet is inserted between packets of the I picture. A demultiplexer processing section 19 demultiplexes the audio data with the PTS equivalent to a time between a PTS of an I picture and a PTS of a succeeding picture and read from a disk drive 16 and provides an output of the audio data to an audio signal expansion processing section 21.

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DIALOG(R) File 347: JAP10  
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05974347 \*\*Image available\*\*  
RECEIVER FOR PLURAL BROADCAST SERVICES

PUB. NO.: 10-257447 [JP 10257447 A]  
PUBLISHED: September 25, 1998 (19980925)  
INVENTOR(s): YAMASHITA AKIHIKO  
APPLICANT(s): SANYO ELECTRIC CO LTD [000188] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 09-061090 [JP 9761090]  
FILED: March 14, 1997 (19970314)

#### ABSTRACT

... at an input processing circuit 312. The output of input processing circuit 312 is a fixed length packet stream multiplexing plural programs or control information and the selection out of that stream is performed while...

... sent to the following stage and the other packet is ignored. The selected video or audio data are converted to original video signals 317 or audio signals 318 after decode processing through an MPEG decoder 315. At the time of viewing the pay-by-view program its information is...

17/3, K/7 (Item 1 from file: 350)  
DIALOG(R) File 350: Derwent WPI X  
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0017978561 - Drawing available

WPI ACC NO: 2008-H95277/200851

XRPX Acc No: N2008-637812

Single channel or multi-channel elementary audio and video stream  
compounding method for low-delay real time multiplexing transmission  
stream, involves packaging audio/video basic data into audio/video  
packetized elementary stream

Patent Assignee: CENTRES INST SHANGHAI GEN ELECTRONIC GROUP CO LTD  
(RESH-N)

Inventor: LI G, LI P

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
CN 101212671	A	20080702	CN 200710172808	A	20071221	200851 B

Priority Applications (no., kind, date): CN 200710172808 A 20071221

#### Patent Details

Number	Kind	Lang	Pg	Dwg	Filing Notes
CN 101212671	A	ZH	10	2	

... or multi-channel elementary audio and video stream compounding method  
for low-delay real time multiplexing transmission stream, involves  
packaging audio/video basic data into audio/video packetized  
elementary stream

#### Original Titles:

A method of low-delay real time multiplexing transmission stream

**Alerting Abstract ... NOVELTY** - The method involves packaging audio/video  
basic data into an audio/video packetized elementary stream (PES), and  
packaging the PES into an audio...

... is generated, and determination is made whether a PES packaging and TS  
packaging of a frame of video ES data and audio TS packet in  
corresponding time has finished. Determining is made whether reuse of a  
video frame of a current group of picture (GOP) has finished. An empty  
packet is filled into...

... elementary audio and video stream into a transmission stream in a  
low-delay real time multiplexing transmission stream..

**Title Terms.../Index Terms/Additional Words:** MULTI PLEX ;

Assignee name & address:

#### Original Abstracts:

This invention claims a method of low-delay real time multiplexing  
transmission stream comprising steps of packaging audio/video basic  
data into packetized elementary stream PES; packaging the PES into TS  
packet; then generating program specific information PSI data; placing the  
audio TS packet and video TS packet into transmission stream buffer  
area evenly and updating program clock reference PCR information at the  
same time, when finishing PES packaging and TS packaging of video ES  
data and audio TS packet in corresponding time; filling empty packet  
into the output buffer area to output transmission rate in constant bit  
stream according to...

#### Claims:

[CLAIM 1] A method of low-delay real time multiplexing transmission  
stream used for compounding single channel or multi-channel elementary  
audio and video stream...

... stream wherein said method is realized by steps as follow: step 1 of  
packaging audio/video basic data into audio/video packetized  
elementary stream PES; step 2 of packaging the audio/video PES into audio

... information PSI data; step 4 of determining whether PES packaging and TS packaging of one **frame** of video ES **data** and **audio** TS packet in corresponding time has finished, if it has done, turning to step 5; or else, circulating step 1 to step 3; step 5 of placing the audio TS **packet** and video TS **packet** into transmission stream buffer area evenly and updating program clock reference PCR information at the **same time**; step 6 of determining whether reuse of **video frame** of current group of picture GOP has finished, if it has done, turning to step 4 to reuse the next frame of audio and **video data** continuously; or else, processing step 7; step 7 of filling empty packet into the output...

**17/3, K/8 (Item 2 from file: 350)**

DI ALOG(R) File 350: Derwent WPI X  
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0017305187 - Drawing available  
WPI ACC NO. 2008-B25628/200808

XRPX Acc No: N2008-097484

**Data packet's e.g. video data packet, transmission server for use in digital data delivery system has delivering section delivering video and audio data packets and synchronization signal packets to respective receivers**

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU); HIGASHIDA M (HIGA-1); OYAMA S (OYHA-1)

Inventor: HIGASHIDA M; OYAMA S; OYAMA T

**Patent Family (2 patents, 2 countries)**

Patent Number	Kind	Date	Number	Kind	Date	Update
US 20070250873	A1	20071025	US 2006402823	A	20060413	200808 B
JP 2007274019	A	20071018	JP 200693414	A	20060330	200808 E

Priority Applications (no., kind, date): JP 200693414 A 20060330

**Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing Notes
US 20070250873	A1	EN	28	12	
JP 2007274019	A	JA	35		

**Data packet's e.g. video data packet, transmission server for use in digital data delivery system has delivering section delivering video and audio data packets and synchronization signal packets to respective receivers**

**Alerting Abstract ... NOVELTY -** The server (101) has a data stream generating section generating a **video data packet**, a **video synchronization signal packet**, **audio data packet**, and an **audio synchronization signal packet** with **audio synchronization signal**. A data stream delivering section delivers the **video data packet** and **video synchronization signal** packet to a receiver. The delivering section delivers the **audio data packet** and the **audio synchronization signal** packet to another receiver. The delivering section delivers a contents reference table to the receivers.... **USE -** Used for digitally delivering a data packet such as **video data packet** and **audio data packet**, to a receiver through a wired transmission channel in a transmission facility of a...

**Technology Focus**

INDUSTRIAL STANDARDS - The transmission server conforms to **MPEG** and **MPEG-2** standards.

**Title Terms.../Index Terms/Additional Words: SYNCHRONIZATION;**

Assignee name & address:

**Original Abstracts:**

The invention provides a digital data delivery system that delivers **video data** of a content and **audio data** of the same content respectively to a first receiver and a second receiver, which are independent of each other, to reproduce the **video data** and the **audio data** at the first and second receivers in such a manner as to secure synchronous reproductions...

...the two data. The digital data delivery system comprises a transmission server which delivers a **video data** packet and a **video synchronization signal** packet to the first receiver and an **audio data** packet and an **audio synchronization signal** packet which indicates a **time** on the **same** reference **time** axis as that of the **video synchronization signal** packet to the second receiver, the first receiver which adjusts a **clock signal** based on the **video synchronization signal** packet and reproduces the **video data** packet based on this **clock signal**, and the second receiver which adjusts a **clock signal** based on the **audio synchronization signal** packet and reproduces the **audio data** packet based on this **clock signal**.

**Claims:**

...packet to a receiver through a transmission channel comprising: a generating section that generates a **video data** packet including digital **data** of **video information** of a content, a **video synchronization signal** packet including a **video synchronization signal**, an **audio data** packet including digital **data** of **audio information** of the same content, and an **audio synchronization signal** packet including an **audio synchronization signal**; and a delivering section that can deliver the **video data** packet and the **video synchronization signal** packet to a first receiver and deliver the **audio data** packet and the **audio synchronization signal** packet to a second receiver.

17/3, K/9 (Item 3 from file: 350)

DI ALCG(R) File 350: Derwent WPI X

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0016357084 - Drawing available  
WPI ACC NO: 2007-073254/200707

XRPX Acc No: N2007-050276

Multiplexer for moving picture experts group-2 transport stream based audio/video communications, encodes input TS packets by variable and fixed length coding, and decodes based on timing value included in encoded data

**Patent Assignee:** SONY CORP (SONY); SONY COMPUTER ENTERTAINMENT INC (SONY)  
Inventor: IWASE A; KATO M; IWASE A S C; KATO M S C

**Patent Family** (5 patents, 111 countries)

Patent	Appli cati on	Number	Kind	Date	Number	Kind	Date	Updat e
WO 2006115163	A1	20061102	WO 2006JP308298	A	20060420	200707	B	
JP 2006301442	A	20061102	JP 2005125546	A	20050422	200707	E	
IN 200706338	P1	20070831	WO 2006JP308298	A	20060420	200781	E	
			IN 2007DN6338	A	20070814			
EP 1873755	A1	20080102	EP 2006732156	A	20060420	200805	E	
			WO 2006JP308298	A	20060420			
CN 101164103	A	20080416	CN 200680013558	A	20060420	200846	E	
			WO 2006JP308298	A	20060420			

Priority Applications (no., kind, date): JP 2005125546 A 20050422

**Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing	Notes
WO 2006115163	A1	JA	122	35		

National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK

MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY  
TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
Regional Designated States, Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO  
SD SE SI SK SL SZ TR TZ UG ZM ZW  
JP 2006301442 A JA 67  
IN 200706338 P1 EN PCT Application WO 2006JP308298  
EP 1873755 A1 EN PCT Application WO 2006JP308298  
Based on OPI patent WO 2006115163  
Regional Designated States, Original: AT DE FR GB NL  
CN 101164103 A ZH PCT Application WO 2006JP308298  
Based on OPI patent WO 2006115163

Multiplexer for moving picture experts group-2 transport stream based audio/video communications, encodes input TS packets by variable and fixed length coding, and decodes based on timing value included in encoded data

#### Original Titles:

Multiplexing device and multiplexing method, program recording medium . . .

. . . EI NRICHTUNG UND VERFAHREN ZUM MULTIPLEXEN, PROGRAMM, AUFZEICHNUNGSMEDIUM . . .

. . . MULTIPLEXING DEVICE AND MULTIPLEXING METHOD, PROGRAM, RECORDING MEDIUM . . .

. . . DISPOSITION DE MULTIPLEXAGE ET PROCEDE DE MULTIPLEXAGE, PROGRAMME ET SUPPORT D'ENREGISTREMENT . . .

. . . MULTIPLEXING DEVICE AND METHOD, PROGRAM AND RECORDING MEDIUM . . .

. . . MULTIPLEXING DEVICE AND MULTIPLEXING METHOD, PROGRAM, RECORDING MEDIUM . . .

. . . DISPOSITION DE MULTIPLEXAGE ET PROCEDE DE MULTIPLEXAGE, PROGRAMME ET SUPPORT D'ENREGISTREMENT . . .

**Alerting Abstract . . . NOVELTY** - The multiplexer has a set of encoders which encodes the input audio TS by the fixed and variable length encoding methods. The encoded data is converted into a packet elementary stream (PES) and same identifier is assigned to the TS packets. A detector determines the multiplexing TS packets and accordingly the PES at the head of a payload is identified. A set of virtual decoders decode the audio data based on the timing value added to the encoded data. A controller sets the TS packet based on the multiplexing conditions and data transfer rate among buffers. . . . multiplexing method; multiplexing program and computer readable medium storing multiplexing program . . .

. . . USE - For **MPEG2** - TS based audio/video communications, **MPEG2** - TS based telephone and cable television (CATV) services . . .

. . . ADVANTAGE - The TS packet of different audio streams is encoded with different encoding methods easily, while enabling multiplexing into a single transport stream

#### Technology Focus

INDUSTRIAL STANDARDS - The audio / video data transport stream is encoded / decoded in accordance with **MPEG-2** .

Title Terms/ Index Terms/ Additional Words: **MULTI PLEX** ; . . .

. . . ENCODE ;

Assignee name & address:

**Original Abstract:**

This invention claims a **multiplexer**, a **multiplexing** method, a program and a recording medium whereby TS packets **encoded** with different **encoding** methods can be **multiplexed**. In the event of **multiplexing** each TS packet of a BS audio TS173 wherein a BS audio ES 171 **encoded** with a first **encoder** is subjected to TS packetizing, and each TS packet of an HQ audio TS 183 wherein an HQ audio ES 181 **encoded** with a second **encoder** is subjected to TS packetizing, a control unit assumes a first virtual decoder capable of...

...decoder capable of decoding an HQ audio ES alone, and determines TS packets to be **multiplexed** based on an elementary buffer of each virtual decoder, a data transfer rate for the elementary buffer, and **multiplexing** constraints for random access. The invention can be applied to a **multiplexer** configured to **multiplex** TS packets...

...The present invention relates to a **multiplexer**, a **multiplexing** method, a program and a recording medium whereby TS packets **encoded** with different **encoding** methods can be **multiplexed**. In the event of **multiplexing** each TS packet of a BS audio TS 173 wherein a BS audio ES 171 **encoded** with a first **encoder** is subjected to TS packetizing, and each TS packet of an HQ audio TS 183 wherein an HQ audio ES 181 **encoded** with a second **encoder** is subjected to TS packetizing, a control unit assumes a first virtual decoder capable of...

...decoder capable of decoding an HQ audio ES alone, and determines TS packets to be **multiplexed** based on an elementary buffer of each virtual decoder, a data transfer rate for the elementary buffer, and **multiplexing** constraints for random access. The present invention can be applied to a **multiplexer** configured to **multiplex** TS packets...

...A **multiplexing** device and a **multiplexing** method for **multiplexing** TS packets **encoded** by different **encoding** method, a program and a recording medium. When **multiplexing** TS packets of a BS audio TS (173) produced by TS-packeting a BS audio ES (171) **encoded** by a first **encoder** and TS packets of an HQ audio TS (183) produced by TS-packeting an HQ audio ES (181) **encoded** by a second **encoder**, a control unit virtually sets a first virtual decoder capable of decoding only BS audio...

...second virtual decoder capable of decoding HQ audio ESs and determine TS packets to be **multiplexed** according to the elementary buffers of the virtual decoders, the rate of data transfer to each elementary buffer, and the **multiplexing** limitation on random access. This invention can be applied to **multiplexers** for **multiplexing** TS packets...

...L'invention concerne un dispositif de **multiplexage** et un procédé de **multiplexage** permettant de **multiplexer** des paquets TS codés par des méthodes de codage différentes. L'invention concerne également un procédé, un programme et un support d'enregistrement. Selon l'invention, lors du **multiplexage** de paquets TS d'un TS audio BS (173) produit par mise en paquets TS...

...décodeur virtuel capable de décoder des ES audio HQ et détermine les paquets TS à **multiplexer** en fonction de tampons élémentaires des décodeurs virtuels, de la vitesse de transfert de données vers chaque tampon élémentaire et de la limitation imposée par le **multiplexage** sur l'accès alternatif. L'invention peut être appliquée aux **multiplexeurs** pour le **multiplexage** de paquets TS.

**Claims:**

A **multiplexer** configured to **multiplex** audio **data** as TS (transport stream) packets, comprising: first **encoding** means configured to **encode** said **audio data** using a first **encoding** method serving as a predetermined **encoding** method; second **encoding** means configured to **encode** said **audio data** using a second **encoding** method, which is a

variable-length **encoding** method, and also differs from said first **encoding** method, arranged to add a timing value representing timing employed for a case of being decoded to each predetermined **audio data** unit; PES packetizing means configured to packetize said **audio data** **encoded** by said first **encoding** means, and said **audio data** **encoded** by said second **encoding** means to a PES packet, and also add point-in-time information employed for a...

... plurality of said packetized TS packets; determining means configured to determine TS packets to be **multiplexed** from a plurality of said TS packets packetized by said TS packetizing means; and **multiplexing** means configured to **multiplex** said TS packets determined by said determining means; wherein said PES packetizing means packetize said **audio data** **encoded** by said first **encoding** means, and said **audio data** **encoded** by said second **encoding** means to a PES packet such that said **audio data** unit satisfying a predetermined cycle appears at the head of a PES payload; and wherein said determining means is configured to assume a first virtual decoder configured to decode said **audio data** **encoded** by said first **encoding** means, and a second virtual decoder configured to decode said **audio data** **encoded** by said second **encoding** means based on said timing value added to said **audio data** **encoded** by said second **encoding** means, and also determine TS packets to be **multiplexed** based on **multiplexing** constraints arranged to randomly access said **multiplexed** TS packets...

... A **multiplexer** configured to **multiplex** **audio data** as TS (Transport Stream) packets, comprising: first **encoding** means configured to **encode** said **audio data** using a first **encoding** method serving as a predetermined **encoding** method; second **encoding** means configured to **encode** said **audio data** using a second **encoding** method, which is a variable-length **encoding** method, and also differs from said first **encoding** method, arranged to add a timing value representing timing employed for a case of being decoded to each predetermined **audio data** unit; PES packetizing means configured to packetize said **audio data** **encoded** by said first **encoding** means, and said **audio data** **encoded** by said second **encoding** means to a PES packet, and also add point-in-time information employed for a...

... plurality of said packetized TS packets; determining means configured to determine TS packets to be **multiplexed** from a plurality of said TS packets packetized by said TS packetizing means; and **multiplexing** means configured to **multiplex** said TS packets determined by said determining means; wherein said PES packetizing means packetize said **audio data** **encoded** by said first **encoding** means, and said **audio data** **encoded** by said second **encoding** means to a PES packet such that said **audio data** unit satisfying a predetermined cycle appears at the head of a PES payload; and wherein said determining means is configured to assume a first virtual decoder configured to decode said **audio data** **encoded** by said first **encoding** means, and a second virtual decoder configured to decode said **audio data** **encoded** by said second **encoding** means based on said timing value added to said **audio data** **encoded** by said second **encoding** means, and also determine TS packets to be **multiplexed** based on **multiplexing** constraints arranged to randomly access said **multiplexed** TS packets.

17/3, K/10 (Item 4 from file: 350)  
DIALOG(R) File 350: Derwent WPI X  
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0015784283 - Drawing available  
WPI ACC NO: 2004-670965/200466  
Related WPI Acc No: 1997-283408  
XRPX Acc No: N2004-531714

Digital television data decoding method involves controlling output of stored data in buffer, when decoder system time clock reaches specific time derived from presentation time stamp of audio data

Patent Assignee: GEN INSTR CORP (GENN)

Inventor: MORONEY P; NUBER R; WALKER G K

Patent Family (1 patent, 3 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
EP 1463334	A2	20040929	EP 1996118657	A	19961121	200466 B
			EP 200413223	A	19961121	

Priority Applications (no., kind, date): US 1995562611 A 19951122

#### Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
EP 1463334	A2	EN	21	5	Division of application	EP 1996118657
					Division of patent	EP 776134

Regional Designated States, Original: DE FR GB

... buffer, when decoder system time clock reaches specific time derived from presentation time stamp of audio data

**Alerting Abstract** ... NOVELTY - A synchronization word is identified in audio packet to obtain synchronization condition enabling the recovery of audio data from selected audio packets, for storage in buffer. On detecting error in audio data, the flow of data into the buffer is controlled. The stored data is output from...

... buffer when decoder system time clock reaches specific time derived from the presentation time stamp (PTS) of audio data. ... apparatus for acquiring audio information carried by packetized data stream and method for managing errors in data received in bursts from packetized...

... USE - For decoding digital audio data such as digital television data from packetized transport stream...

... ADVANTAGE - Transport packet errors are handled effectively while maintaining audio synchronization.

...

... figure shows a diagrammatic view explaining the formation of audio transport packets from elementary stream of audio data.

Assignee name & address:

#### Original Abstracts:

Audio data is processed from a packetized data stream carrying digital television information in a succession of fixed length transport packets. Some of the packets contain a presentation time stamp (PTS) indicative of a time for commencing the output of associated audio data. After the audio data stream has been acquired, the detected audio packets are monitored to locate subsequent PTS's for adjusting the timing at which audio data is output, thereby providing proper lip synchronization with associated video. Errors in the audio data are processed in a manner which attempts to maintain synchronization of the audio data stream while masking the errors. In the event that the synchronization condition cannot be maintained, for example in the presence of errors over more than one audio frame, the audio stream is reacquired while the audio output is concealed. An error condition is signaled to the audio decoder by altering the audio synchronization word associated with the audio frame in which the error has occurred.

#### Claims:

A method for processing digital audio data from a packetized data

stream carrying digital television information in a succession of transport packets having a fixed length of N bytes, each of said packets including a packet identifier (PID), some of said packets containing a program clock reference (PCR) value for synchronizing a decoder system time clock, and some of said packets containing a presentation time stamp (PTS) indicative of a time for commencing the output of associated data for use in reconstructing a television...

... of monitoring the PID's for the packets carried in said data stream to detect audio packets; examining the detected audio packets to locate the occurrence of audio synchronization words for use in achieving a synchronization condition, each two consecutive audio synchronization words defining an audio frame therebetween; monitoring the detected audio packets after said synchronization condition has been achieved to locate an audio PTS; searching the detected audio packets after locating said audio PTS to locate the next audio synchronization word; storing audio data following said next audio synchronization word in a buffer; detecting the occurrence of errors in said audio packets; upon detecting a first audio packet of a current audio frame containing an error

... error; monitoring the detected audio packets of said current audio frame for the next audio synchronization word after said error has been detected, and if said synchronization word is not received where expected in the audio stream discarding subsequent audio data while searching for said synchronization word rather than storing the subsequent audio data into said buffer; resuming the storage of audio data in said buffer upon detection of said next audio synchronization word if said next audio synchronization word is located within N bytes after the commencement of the search therefor; and if said next audio synchronization word is not located within said N bytes after the commencement of the search therefor, commencing a reacquisition of said synchronization condition.>

17/3, K/11 (Item 5 from file: 350)  
DIALOG(R) File 350: Derwent WPI X  
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0015700560 - Drawing available  
WPI ACC NO: 2006-049015/200606  
XRPX Acc No: N2006-042175

Audio-video stream information storage medium e.g. DVD stores audio-video stream comprising data source packet placed after video source packet which has same presentation time stamp value as that of data source packet

Patent Assignee: SAMSUNG ELECTRONICS CO LTD (SMSU)

Inventor: CHUNG H; CHUNG H K; JUNG K; JUNG K S; KANG M; KANG M S; TEI G

Patent Family (8 patents, 41 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
EP 1605701	A2	20051214	EP 2005253484	A	20050607	200606 B
JP 2005354706	A	20051222	JP 2005170062	A	20050609	200606 E
US 20060007963	A1	20060112	US 2005143483	A	20050603	200606 E
CN 1708121	A	20051214	CN 200510075187	A	20050610	200628 E
KR 2005117462	A	20051214	KR 200447624	A	20040624	200652 E
KR 547162	B1	20060126	KR 200447624	A	20040624	200682 E
EP 1605701	A3	20080116				200807 E
TW 290436	B1	20071121	TW 2005118528	A	20050606	200849 E
Priority Applications (no., kind, date):		KR 200442657 A 20040610; KR 200447624 A 20040624				

#### Patent Details

Number	Kind	Lang	Pg	Dwg	Filing Notes
EP 1605701	A2	EN	26	16	

Regional Designated States, Original: AL AT BA BE BG CH CY CZ DE DK EE ES  
FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU  
JP 2005354706 A JA 20  
KR 547162 B1 KO  
Previously issued patent KR 2005117462

EP 1605701 A3 EN

Regional Designated States, Original: AL AT BA BE BG CH CY CZ DE DK EE ES  
FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU  
TW 290436 B1 ZH

**Audi o- video stream information storage medium e.g. DVD stores audi o- video stream comprising data source packet placed after video source packet which has same presentation time stamp value as that of data source packet**

**Alerting Abstract** ... data source packet is placed after the video source packet which has same presentation timestamp (PTS) value as that of the data source packet having presentation graphic data. ... USE - E.g. digital versatile disk (DVD) for recording AV stream which includes video data, audio data and graphics data...

... ADVANTAGE - Enables display of graphic data together with video data, even when a jump operation of a reproduction location is performed...

#### Technology Focus

INDUSTRIAL STANDARDS - The video, audio and graphics data are multiplexed in MPEG-2 format.

Assignee name & address:

#### Original Abstracts:

An information storage medium on which an AV stream including video data, audio data, and graphic data multiplexed in an MPEG-2 transport stream format is recorded, and a reproducing method and apparatus, where the AV...

... information storage medium includes: at least one video source packet; at least one audio source packet; and at least one additional data source packet, disposed after a video source packet having a same presentation time information as that of the additional data source packet. Thus, even when a jump operation of a reproduction location is performed, graphic data corresponding to video data can be displayed together...

... An information storage medium on which an AV stream including video data, audio data, and graphic data multiplexed in an MPEG-2 transport stream format is recorded, and a reproducing method and apparatus, where the AV...

... information storage medium includes: at least one video source packet; at least one audio source packet; and at least one additional data source packet, disposed after a video source packet having a same presentation time information as that of the additional data source packet. Thus, even when a jump operation of a reproduction location is performed, graphic data corresponding to video data can be displayed together.

#### Claims:

... at least one additional data source packet, wherein the at least one additional data source packet is disposed after the at least one video source packet having a same presentation time information as that of the at least one additional data source packet.

... at least one additional data source packet, wherein the at least one

additional data source **packet** is disposed after the at least one video source **packet** having a **same** presentation **time** information as that of the at least one additional data source **packet**.>

17/3, K/12 (Item 6 from file: 350)  
DIALOG(R) File 350: Derwent WPI X  
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0015457486 - Drawing available  
WPI ACC NO: 2006-017364/200602  
Related WPI Acc No: 2006-017357; 2006-017359; 2006-017363  
XPX Acc No: N2006-015191

**Data stream synchronizer for wireless communication system** has signal combiner which receives frame of decoded video data and audio data from buffers to obtain frame of both synchronized data  
Patent Assignee: GARUDADRI H (GARU-1); NANDA S (NAND-1); SAGETONG P (SAGE-1)

Administrator: GARUDADRI H; NANDA S; SAGETONG P

**Patent Family** (1 patent(s), 1 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
US 20050259694	A1	20051124	US 2004571673	P	20040513	200602 B
			US 2005129635	A	20050513	

Priority Applications (no., kind, date): US 2004571673 P 20040513; US 2005129635 A 20050513

#### **Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing	Notes
US 20050259694	A1	EN	21	9	Related to Provisional	US 2004571673

**Data stream synchronizer for wireless communication system** has signal combiner which receives frame of decoded video and audio data from buffers to obtain frame of both synchronized data

#### **Original Titles:**

Synchronization of audio and video data in a wireless communication system

**Alerting Abstract** . . . NOVELTY - A pair of buffers accumulate the respective decoded video and **audio data** streams in set intervals and outputs a frame of respective decoded video and **audio data**. A signal combiner receives the frame of decoded video and **audio data** from respective buffers and outputs a frame of both **synchronized data** . . . remote station; base station; wireless communication system; method for decoding **synchronization** data streams; method for **encoding** audio and **video data**; and computer readable medium storing **program** for decoding and **synchronization** data streams.

. . . USE - For **synchronization** **audio data** stream and **video data** stream in wireless communication system (claimed) used in **multimedia** **data** distribution, unicast, **voice** and broadcast applications . . .

. . . ADVANTAGE - Limits the number of packets used per physical layer thereby the **synchronized** transmission of data is enabled. Allows simultaneous transmission of video and audio communication **packets** due to effective frame **synchronization** .

#### **Technology Focus**

INDUSTRIAL STANDARDS - The data decoder conforms to **MPEG**, **H.263** and **H.264**, and wireless communication system conforms to **CDMA2000**, **IS-95** and their . . .

Title Terms.../Index Terms/Additional Words: SYNCHRONISATION;

Assignee name & address:

Original Abstracts:

Techniques are described for **encoding** an audio video **stream** that is transmitted over a network, for example a wireless or IP network, such that an entire frame of audio and an entire **frame** of **video** are transmitted simultaneously **within** a period required to render the audio **video** **stream** **frames** by an application in a receiver. Aspects of the techniques include receiving audio and video RTP streams and assigning an entire frame of RTP **video** **data** to communication **channel** **packets** that occupy the **same** **period**, or less, as the **video** **frame** **rate**. Also an entire frame of RTP **audio** **data** is assigned to communication **channel** **packets** that occupy the **same** **period**, or less, as the **audio** **frame** **rate**. The **video** and **audio** communication **channel** **packets** are transmitted simultaneously. Receiving and assigning RTP streams can be performed in a remote station, or a base station.

Claims:

< b>1</b>. A data stream synchronizer comprising: a first decoder configured to receive a first encoded data stream and to output a decoded first data stream wherein the first encoded data stream has a first bit rate during an information interval; a second decoder configured to receive a second encoded data stream and to output a decoded second data stream wherein the second encoded data stream has a second bit rate during the information interval; a first buffer configured to accumulate the first decoded data stream for...

...decoded data stream and the frame of second decoded data stream and to output a synchronized frame of first and second decoded data streams.

17/3, K/13 (Item 7 from file: 350)

DI ALCG(R) File 350: Derwent WPI X

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0014753578 - Drawing available  
WPI ACC NO: 2005-101210/200511

XRPX Acc No: N2005-087934

Fixed - length packets processing apparatus for set-top box, has null packet detector for detecting whether received packet is null - packet, and for identifying location of sync - byte of detected null - packet

Patent Assignee: THOMSON LICENSING (CSFC); THOMSON LICENSING SA (CSFC)  
Inventor: LIU W MARKMAN I; MAYER M; MAYER M T

Patent Family (9 patents, 106 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
WO 2004114676	A2	20041229	WO 2004US19003	A	20040616	200511 B
EP 1634462	A2	20060315	EP 2004755280	A	20040616	200620 E
Priority Applications (no., kind, date): US 2003479397 P 20030618; US 2005560480 A 20051212						

Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
WO 2004114676	A2	EN	25	4		
National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW						
Regional Designated States, Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW						
EP 1634462	A2	EN			PCT Application	WO 2004US19003

Based on OPI patent WO 2004114676  
Regional Designated States, Original : DE ES FR GB IT  
BR 200411541 A PT PCT Application WO 2004US19003  
Based on OPI patent WO 2004114676  
KR 2006022696 A KO PCT Application WO 2004US19003

Fixed - length packets processing apparatus for set-top box, has null - packet detector for detecting whether received packet is null - packet , and for identifying location of sync-byte of detected null - packet

Alerting Abstract ... method for processing stream of fixed - length packets ; computer program product for set-top-box to process stream of fixed - length packets ; and computer program product for television set to process stream of fixed - length packets .  
...

... USE - In set-top-box and television set , for processing MPEG - 2 stream including digital audio / video data , that is broadcast over digital transmission system .

... ADVANTAGE - Enables detecting the MPEG - 2 packet sync-byte positions received through a digital transmission system effectively .

... DESCRIPTION OF DRAWINGS - The figure shows a block diagram of an MPEG framing block at the receiver end of digital transmission system

Assignee name & address:

Original Abstracts:

A method and apparatus (299) for reliably detecting MPEG - 2 packet sync-byte positions received via a digital transmission system in the event of ...

... packets or a plurality of packets containing a fixed repeating bit pattern and for reliably synchronizing and delivering the MPEG - 2 stream broadcast to the receiver transport layer . A Null - Packet Detector (250) compares the ...

... A method and apparatus for reliably detecting MPEG - 2 packet sync-byte positions received via a digital transmission system in the event of ...

... packets or a plurality of packets containing a fixed repeating bit pattern and for reliably synchronizing and delivering the MPEG - 2 stream broadcast to the receiver transport layer . A Null - Packet Detector compares the content ...

... A method and apparatus (299) for reliably detecting MPEG - 2 packet sync-byte positions received via a digital transmission system in the event of ...

... packets or a plurality of packets containing a fixed repeating bit pattern and for reliably synchronizing and delivering the MPEG - 2 stream broadcast to the receiver transport layer . A Null - Packet Detector (250) compares the ...

... un system et un appareil (299) destines a detecter convenientement des positions de bits de synchronisation par paquets de MPEG - 2 recues par l'intermediaire d'un system de transmission numerique , dans le cas de ...

... contenant un modele de bits de repetition fixe . Ledit system et appareil permettent eggalement de synchroniser convenientement et de distribuer une diffusion de flux de MPEG - 2 vers la couche de transport du recepteur . Un detecteur de paquets nuls (250) compare ...

... maniere a detecter un paquet nul , ceci permettant d'identifier l'emplACEMENT du bit de synchronisation du paquet nul . Une position de bits de synchronisation est identifiee sur la base de la position du

motif de bits fixe prédéterminés dans...

**Claims:**

< b > 1 < / b >. An apparatus for processing a stream of **fixed-length packets** received as digitally **encoded** signals and having multiple **packet** types, each **packet** including a header portion and a data portion, the header portion containing a sync byte...

17/3, K/14 (Item 8 from file: 350)

DIGITAL (R) File 350: Derwent WPI X

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0014695889 - Drawing available  
WPI ACC NO: 2005-043488/200505

XRPX Acc No: N2005-038334

**Image/ audio data transmission system has jitter absorption circuit that sets time interval between packets of received transport stream, equivalent to time interval between packets of output TS of MPEG encoder of transmission apparatus**

Patent Assignee: VICTOR CO OF JAPAN (VICO)

Inventor: ISOBE Y; SHIBAYAMA T

Patent Family (1 patents, 1 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
JP 2004356858	A	20041216	JP 2003150864	A	20030528	200505 B

Priority Applications (no., kind, date): JP 2003150864 A 20030528

**Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing	Notes
JP 2004356858	A	JA	13	8		

**Image/ audio data transmission system has jitter absorption circuit that sets time interval between packets of received transport stream, equivalent to time interval between packets of output TS of MPEG encoder of transmission apparatus**

**Alerting Abstract** ... receiver (40) has a jitter absorption circuit (42) that sets the time interval between the **packets** of transport stream (TS) received through a transport control protocol/internet protocol (TCP/IP) interface (41), to be **equivalent** to the **time interval** between the **packets** of the output TS of a **MPEG encoder** (31) of a transmission apparatus (30).... USE - For transmitting **image data** and **audio data** to digital **video tape recorder** (VTR) and set top box (STB) connected to TV through local area network (LAN) such as...

... 31 **MPEG encoder**

...

... 43 **MPEG decoder**

**Title Terms.../Index Terms/Additional Words:** **ENCODE** ;

17/3, K/15 (Item 9 from file: 350)

DIGITAL (R) File 350: Derwent WPI X

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0014680041 - Drawing available  
WPI ACC NO: 2005-027624/200503

XRPX Acc No: N2005-024132

**Moving image encoder for image reproducing apparatus, multiplexes padding data when packet having fixed length does not contain termination data of frame, and determines rate of video data during**

multiple existing

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: MIZUGUCHI N; WATABE A

Patent Family (1 patent, 1 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
JP 2004363820	A	20041224	JP 2003158456	A	20030603	200503 B

Priority Applications (no., kind, date): JP 2003158456 A 20030603

Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
JP 2004363820	A	JA	21	7		

Moving image encoder for image reproducing apparatus, multiple paddings data when packet having fixed length does not contain termination data of frame, and determines rate of video data during multiple existing

Original Titles:

MOVING PICTURE ENCODING DEVICE AND MOVING PICTURE DECODING SYSTEM

Alerting Abstract . . . NOVELTY - An encoder encodes image data of each frame. A multiplexer (101) multiple pads padding data when packet having fixed length does not contain termination data of frame. A rate controller (102) determines the rate of video data during multiple existing . . . USE - Moving image encoder for image and audio data reproducing apparatus . . .

. . . ADVANTAGE - Prevents degradation of image and audio quality when encoded data is decoded . . .

. . . DESCRIPTION OF DRAWINGS - The figure shows the block diagram of the moving image encoder . (Drawing includes non-English language text . . .)

. . . 101 multiplexing unit . . .

. . . 103 encoder

. . .

. . . 1003 audio data encoder

Title Terms . . . / Index Terms/ Additional Words: ENCODE ; . . .

. . . MULTIPLEX ;

17/3, K/16 (Item 10 from file: 350)

DIGITAL FILE 350: Derwent WPI X

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0014269002 - Drawing available

WPI ACC NO: 2004-455403/200443

XRXPX Acc No: N2004-360735

Video editing apparatus has controller to set ineffective data, by overwriting packet header identifier of video and audio data in set designation range, with padding stream identifier

Patent Assignee: NEC CORP (NIDE)

Inventor: MORISHITA T

Patent Family (3 patents, 2 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
JP 2004159251	A	20040603	JP 2002325263	A	20021108	200443 B
US 20040141722	A1	20040722	US 2003702449	A	20031107	200449 E

JP 3896949 B2 20070322 JP 2002325263 A 20021108 200723 E

Priority Applications (no., kind, date): JP 2002325263 A 20021108

**Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing Notes
JP 2004159251	A	JA	15	6	
JP 3896949	B2	JA	15		Previously issued patent JP 2004159251

... apparatus has controller to set ineffective data, by overwriting packet header identifier of video and audio data in set designation range, with padding stream identifier

**Alerting Abstract** ... NOVELTY - A controller (101) designates the deletion start and completion frames for the video and audio data. The controller sets the ineffective data, by overwriting packet header identifier of the video and audio data which have the same synchronous reproduction time of the designation range, with the padding stream identifier.... USE - For editing video and audio data .

... ADVANTAGE - Enables editing the video and audio data, at high speed

**Technology Focus**

INDUSTRIAL STANDARDS - The video and audio data are MPEG data.

Assignee name & address:

**Original Abstracts:**

There is disclosed a video edition apparatus capable of editing video / audio data in which image and sound data are multiplexed at a high rate. The video edition apparatus for editing the video / audio data constituted by multiplexing the image and sound data includes edition control means for rewriting a packet header of video data in a range designated by a deletion start frame and deletion end frame with respect to the video / audio data which is an edition object to constitute nullified data and for rewriting a packet header of audio data including the same synchronous reproduction time in the designated range to constitute the nullified data.

**Claims:**

What is claimed is: <b>1</b>. An apparatus for editing video / audio data in which image and sound data are multiplexed, comprising: means for designating a range of the video / audio data to be an edition object by using a deletion start frame and deletion end frame thereof; and edition control means for rewriting a header of video data in the designated range to constitute nullified data and for rewriting a header of audio data including the same synchronous reproduction time in the designated range to constitute the nullified data.

17/3, K/17 (Item 11 from file: 350)

DI ALOG(R) File 350: Derwent WPI X

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0013863538 - Drawing available

WPI ACC NO: 2004-042102/200404

XRPX Acc No: N2004-034069

Redundant remultiplexer for video signal, has backup module with packet processor and interface which are appropriately operated if primary module fails during operation in input and output modes

Patent Assignee: AGARWAL B (AGAR-1); DARNELL B T (DARN-1); NORONHA C A (NORO-1); SKYSTREAM NETWORKS INC (SKYS- N)

Inventor: AGARWAL B; DARNELL B T; NORONHA C A

Patent Family (7 patents, 101 countries)

Patent			Application			Priority Applications (no., kind, date):		
Number	Kind	Date	Number	Kind	Date	Update		
US 20030223466	A1	20031204	US 2002159787	A	20020531	200404	B	
WO 2003103196	A2	20031211	WO 2003US16980	A	20030529	200407	E	
NO 200400396	A	20040317	WO 2003US16980	A	20030529	200432	E	
			NO 2004396	A	20040129			
AU 2003238809	A1	20031219	AU 2003238809	A	20030529	200449	E	
EP 1510025	A2	20050302	EP 2003734268	A	20030529	200517	E	
			WO 2003US16980	A	20030529			
AU 2003238809	A8	20051027	AU 2003238809	A	20030529	200624	E	
US 7061942	B2	20060613	US 2002159787	A	20020531	200639	E	

Priority Applications (no., kind, date): US 2002159787 A 20020531

#### Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
US 20030223466	A1	EN	28	9		
WO 2003103196	A2	EN				
National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW						
Regional Designated States, Original: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW						
NO 200400396	A	NO			PCT Application	WO 2003US16980
AU 2003238809	A1	EN			Based on CPI patent	WO 2003103196
EP 1510025	A2	EN			PCT Application	WO 2003US16980
					Based on CPI patent	WO 2003103196
Regional Designated States, Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR						
AU 2003238809	A8	EN			Based on CPI patent	WO 2003103196
Redundant multiplexer for video signal, has backup module with packet processor and interface which are appropriately operated if primary module						
...						

#### Original Titles:

APPARATUS FOR REDUNDANT MULTIPLEXING AND REMULTIPLEXING OF PROGRAM STREAMS AND BEST EFFORT DATA...

... VORRICHTUNG ZUM REDUNDANTEN MULTIPLEXEN UND REMULTIPLEXEN VON PROGRAMMSTROMEN UND BEST-EFFORT-DATEN...

... APPARATUS FOR REDUNDANT MULTIPLEXING AND REMULTIPLEXING OF PROGRAM STREAMS AND BEST EFFORT DATA...

Alerting Abstract ... switch controlled module; and encoded signal transmitting circuit.

... USE - Redundant multiplexer for signal such as video signal, audio signal, closed captioning or tele-text signal, composition signal and graphical overlay-subpicture signal received from compatible personal computer (PC), camera, video tape player, communication demodulator/receiver, display monitor, video tape recorder, communication modulator/transmitter...

... ADVANTAGE - Efficiently multiplexes the fixed length transport stream packets by simple operation.

Assignee name & address:

#### Original Abstracts:

A redundant multiplexer (500) is described which is capable of multiplexing fixed length transport stream packets. Illustratively

, at least **some** of the **packets** contain program data, i.e., data with a sensitive delivery schedule, such as variably compressed audio-video data. An example of such variably compressed data is **MPEG-2 encoded video**. The redundant **remultiplexer** has a chassis architecture with input modules (521) that receive externally originating transport packets, output...

... A redundant remultiplexer is described which is capable of remultiplexing **fixed length** transport stream **packets**. Illustratively, at least some of the **packets** contain program data, i.e., data with a **sensitive** delivery schedule, such as variably compressed audio-video data. An example of such variably compressed data is **MPEG-2 encoded video**. The redundant remultiplexer has a **chassis** architecture with input modules that receive externally originating transport packets, output modules that output externally selected transport...

... A redundant remultiplexer (500) is described which is capable of remultiplexing **fixed length** transport stream **packets**. Illustratively, at least some of the **packets** contain program data, i.e., data with a **sensitive** delivery schedule, such as variably compressed audio-video data. An example of such variably compressed data is **MPEG-2 encoded video**. The redundant remultiplexer has a **chassis** architecture with input modules (521) that receive externally originating transport packets, **output** modules (521) that output externally selected transport stream packets and switch modules (531, 532). The ... compression variable. Un exemple de telles donnees a compression variable concerne la video a codage **MPEG-2**. Le remultiplexeur redondant possede une architecture de chassis avec des modules d'entree (521) qui recoivent des paquets de transport d'origine **externe**, des modules de sortie (521) sortant des paquets de flux de transport de selection externe et des modules de commutat...

**17/3, K/18 (Item 12 from file: 350)**  
 DIALOG(R) File 350: Derwent WPI X  
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0013565376 - Drawing available  
 WPI ACC NO: 2003-659625/200362

XRPX Acc No: N2003-525915

Internet-based multimedia data streaming method involves marking transmissible data packets obtained by packetizing each coding unit, to allow time based selective flushing of data packets carrying less significant data

Patent Assignee: HONG J (HONG-I); INTEL CORP (ITLC); KOZINTSEV I V (KOZI-I); WRASINGHE M Y (WRA-I)

Inventor: HONG J; JIANG H; KOZINTSEV I; KOZINTSEV I V; WRASINGHE M Y

**Patent Family** (5 patents, 101 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
US 20030112822	A1	20030619	US 200128854	A	20011219	200362 B
WO 2003063494	A1	20030731	WO 2002US38025	A	20021126	200362 E
AU 2002359504	A1	20030902	AU 2002359504	A	20021126	200422 E
EP 1457052	A1	20040915	EP 2002794046	A	20021126	200460 E
			WO 2002US38025	A	20021126	
US 7106757	B2	20060912	US 200128854	A	20011219	200660 E
Priority Applications (no., kind, date): US 200128854 A 20011219						

#### **Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing	Notes
US 20030112822	A1	EN	12	6		

WO 2003063494 A1 EN

National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BY

BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU I D I L I N I S JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MK MZ NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

AU 2002359504 A1 EN Based on OPI patent WO 2003063494  
EP 1457052 A1 EN PCT Application WO 2002US38025  
Based on OPI patent WO 2003063494

Regional Designated States, Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

**Alerting Abstract** ... NOVELTY - A data set is **encoded** into multiple coding units. Each coding unit is progressively **encoded** to sequentially present the most significant data followed by less significant data. Each coding unit...  
... USE - For streaming multimedia **data** including **audio**, **video** and **image data**, over **packet** networks such as Internet...

#### Technology Focus

INDUSTRIAL STANDARDS - The **video** **data** conforms to **MPEG2**, **MPEG4**, JPEG and motion JPEG standards.

Assignee name & address:

#### Original Abstracts:

... importance, with some packets being more critical to received data quality than other packets from the same source. If **packets** are delayed in transit from a source to a receiver, **packets** of **lesser** importance are **discarded** after a **set time**, a transmission and decoding of a second set of **time** critical data begins...

#### Claims:

What is claimed is: **<math>1</math>**. A method of: **encoding** a data set into a plurality of coding units, with **each** coding unit being progressively **encoded** to sequentially present most significant data followed by less significant **data**, packetizing each of the plurality of coding units to provide transmissible **data packets**, and marking...

... What is claimed is: 1. A method of: **encoding** a data set into a plurality of coding units, with each coding unit being progressively **encoded** to sequentially present most significant data followed by less significant **data**; packetizing each of the plurality of coding units to provide transmissible **data packets**; marking by time stamping each transmissible **data packet** from the same coding unit to allow...

17/3, K/19 (Item 13 from file: 350)

DIALOG(R) File 350: Derwent WPI X  
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0013481364 - Drawing available  
WPI ACC NO: 2003-573439/200354  
XRXPX Acc No: N2003-455975

Optical disk e.g. DVD contains object data file and object information file which defines correspondence of packets multiplexed at same time and control information of object data file, in different areas

Patent Assignee: FUKUDA Y (FUKU-1); I MAMURA A (I MAM-1); KANEGAE T (KANE-1); KASUYA T (KASU-1); KODA T (KODA-1); NAKAHARA M (NAKA-1); PI ONEER CORP (PI OE); PI ONEER ELECTRONIC CORP (PI OE); SAWABE T (SAWA-1); TAKAMURA N (TAKA-1)

Inventor: FUKUDA Y; I MAMURA A; KANEE T; KANEGAE T; KASUYA T; KODA K; KODA T; NAKAHARA M; NAKAHARA Y; SAWABE T; TAKAKUWA N; TAKAMURA N

Patent Family (4 patents, 100 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
JP 2003199049	A	20030711	JP 2001401660	A	20011228	200354 B
WO 2003058959	A1	20030717	WO 2002JP13799	A	20021227	200357 E
AU 2002367259	A1	20030724	AU 2002367259	A	20021227	200421 E
US 20050163486	A1	20050728	WO 2002JP13799	A	20021227	200550 E
			US 2005500070	A	20050309	

Priority Applications (no., kind, date): JP 2001401660 A 20011228

#### Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
JP 2003199049	A	JA	32	25		
WO 2003058959	A1	JA				

National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MK MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2002367259 A1 EN Based on OPI patent WO 2003058959  
US 20050163486 A1 EN PCT Application WO 2002JP13799

... e.g. DVD contains object data file and object information file which defines correspondence of packets multiplexed at same time and control information of object data file, in different areas

**Alerting Abstract ... NOVELTY** - An object data file (140) stores the received packets as respective units. An object information file (130) stores compatible information which defines correspondence of packets that are multiplexed at same time, and control information of object data file. The object data file multiplexed in packet unit and the object information file are recorded in different areas of the optical disk  
...

#### Technology Focus

INDUSTRIAL STANDARDS - The packets are encoded in accordance with the MPEG - 2 standard.

**Title Terms.../Index Terms/Additional Words:** MULTIPLEX ;

Assignee name & address:

#### Original Abstracts:

... portion streams, each of which is provided with a series of content information, such as picture information or video information and audio information, is multiplexed - and - recorded by a unit of packet. In the first area of the information recording medium there is recorded...

... provided with a plurality of packets, each of which stores therein a piece of the picture information or the audio information. In the second area, which is different from this first area, of the information recording medium there are recorded...

... of the object data, information which defines a correspondence relationship between a plurality of packets multiplexed on a time axis and the plurality of portion streams, and the like...

... including a plurality of partial streams each consisting of a series of contents such as video information and audio information is multi-recorded in packet basis on an information recording medium. The information recording medium has a first region containing a file for storing object data consisting of a plurality of packets each containing a video information piece or an audio information piece. The medium

further has a second **region different** from the first region for storing information to define a reproduction sequence of object data and information to define a correspondence relationship between a plurality of packets **multiplexed** on time axis and a plurality of partial **streams**.

17/3, K/20 (Item 14 from file: 350)

DIALOG(R) File 350: Derwent WPI X  
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0009913128 - Drawing available  
WPI ACC NO: 2000-212649/200019

XRXPX Acc No: N2000-159445

Encoder for digital transmission system, packets compressed digital data per first data length to obtain first data row

Patent Assignee: CANON KK (CANON); KIKUCHI T (KIKUCHI)

Inventor: KIKUCHI T

Patent Family (6 patents, 2 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
JP 11341055	A	19991210	JP 1998141630	A	19980522	200019 B
US 20030137994	A1	20030724	US 1999314122	A	19990519	200352 E
US 20050201390	A1	20050915	US 1999314122	A	19990519	200561 E
			US 2005126368	A	20050511	
US 6970472	B2	20051129	US 1999314122	A	19990519	200578 E
JP 3990813	B2	20071017	JP 1998141630	A	19980522	200770 E
US 7391773	B2	20080624	US 1999314122	A	19990519	200844 E
			US 2005126368	A	20050511	

Priority Applications (no., kind, date): JP 1998141630 A 19980522

Patent Details

Number	Kind	Lang	Pg	Dwg	Filing Notes	
JP 11341055	A	JA	10	4	Division of application	US 1999314122
US 20050201390	A1	EN				
JP 3990813	B2	JA	13		Previously issued patent	JP 11341055
US 7391773	B2	EN			Division of application	US 1999314122
					Division of patent	US 6970472

Encoder for digital transmission system, packets compressed digital data per first data length to obtain first...

Original Titles:

ENCODER, DIGITAL TRANSMITTER AND DIGITAL TRANSMISSION SYSTEM . . .

. . . An **encoder**, the **encoding** method, a digital-transmission apparatus, and a digital-transmission system

**Alerting Abstract** . . . NOVELTY - Audio and **video data** packetting circuits (107, 109) packet the compressed digital data into a first data row. A **multiplexed** transmission packetting circuit (110) packets the first data row into a second data row. A control circuit (108) controls the audio and **video data** packetting circuits based on the length of the second data. DETAILED DESCRIPTION - Audio and video bits reduction circuits (104, 106) compress the digital data. The **multiplex** transmission packetting circuit (110) adds the redundant data depending on necessity and generates packet of . . .

. . . USE - The **encoder** is used for digital intermediary feeder, digital transmission system . . .

. . . The figure shows the block diagram of the components of digital

intermediary feeder with the **encoder**. (104, 106) Audio and video bits reduction circuits; (107, 109) Audio and video data packetting circuits; (108) Control circuit; (110) **Multiplex** transmission packetting circuit.

**Title Terms/ Index Terms/ Additional Words:** **ENCODE** ;

Assignee name & address:

**Original Abstracts:**

This invention relates to the **encoder** which encodes, **multiplexes** and outputs the imaging video and the **audio** | voice **signal** which were digitized, for example, the **encoding** method, a digital-transmission apparatus, and a digital-transmission system As explained above, by this...

...the 1st data length is determined using the 2nd data length. For example, in an **encoding** of digital **audio** **data**, the data which consist of AAU (audio access unit) of a compression-and-expansion unit are packeted per PES (packetizing elementary stream) packet, The information (time-of-day-control information: **PTS**) of the time when **audio** **data** were sampled is added, and PES is produced|generated, It is packeted per further **fixed - length** TS (transport stream) **packet**, and TS is produced|generated, However, At this time, data length for number of objects of AAU corresponding to the maximum period that needs to store **PTS** for the data length of a PES packet in PES is made into an upper...

...more AAU which makes the minimum redundant data (Stuffing data for forming fixed-length TS **packet**) inserted in the data area of TS **packet** is determined, Thus, the 1st data length is related to the 2nd **fixed - length** data length, By having comprised so that the 1st data length that the redundant data for comprising the **packet** of this 2nd data **length** by **fixed - length** become the minimum might be determined, an efficiency improvement of the transmission-line for transmitting...

**Claims:**

A compression means to compress a digital data into a unit **predetermined length**, 1st packetization means to add header information per m (for m to be integer) piece, to **packet** the digital data compressed into the unit **predetermined length** by the said compression means by the 1st data long unit, and to obtain the 1st data sequence, 2nd packetization means to **packet** the 1st data sequence obtained by the said 1st packetization means in a payload part by the 2nd **fixed - length** data long unit, and to obtain the 2nd data sequence, **Predetermined length** of the said...

...of said m based on the length of the said header informationThese are provided, The **encoder** characterized by the above-mentioned.

**17/3, K/21 (Item 15 from file: 350)**

DI ALCG(R) File 350: Derwent WPI X  
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0009548265 - Drawing available  
WPI ACC NO: 1999-493916/199941

XRPX Acc No: N1999-367921

**Bandwidth of transport stream optimizing method e.g. for audio video programs**

Patent Assignee: GRATACAP R (GRAT-1); ROBI NETT R (ROBI-1); SKYSTREAM CORP (SKYS-N); SKYSTREAM NETWORKS INC (SKYS-N); SLATTERY W (SLAT-1)

Inventor: GRATACAP R; ROBI NETT R; SLATTERY W

**Patent Family** (29 patents, 81 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update	
WO 1999037048	A1	19990722	WO 1999US360	A	19990107	199941	B
AU 199920304	A	19990802	AU 199920304	A	19990107	199954	E
IL 137277	A	20061005	IL 137277	A	19990107	200675	E
CN 100380853	C	20080409	CN 1999803994	A	19990107	200845	E

Priority Applications (no., kind, date): US 19986963 A 19980114; US 19986964 A 19980114; US 19987198 A 19980114; US 19987199 A 19980114; US 19987203 A 19980114; US 19987204 A 19980114; US 19987210 A 19980114; US 19987211 A 19980114; US 19987212 A 19980114; US 19987334 A 19980114; US 200137762 A 20011023; US 200145535 A 20011023; AU 2003203654 A 20030411; AU 2003203826 A 20030422; AU 2003203827 A 20030422; US 2003701352 A 20031103; US 20048353 A 20041209

**Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing	Notes
WO 1999037048	A1	EN	171	3		
National Designated States, Original: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MK NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW						
Regional Designated States, Original: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW						
AU 199920304	A	EN			Based on OPI patent	WO 1999037048
EP 1046253	A1	EN			PCT Application	WO 1999US360
					Based on OPI patent	WO 1999037048
Regional Designated States, Original: CH DE FI FR GB IT LI NL						
NO 200003599	A	NO			PCT Application	WO 1999US360
BR 199906963	A	PT			PCT Application	WO 1999US360
					Based on OPI patent	WO 1999037048
IL 137277	A	EN			Based on OPI patent	WO 1999037048

**Alerting Abstract** ... transport packet time slot. The null transport packets are selectively replaced with another to be **multiplexed** data bearing transport packet. An INDEPENDENT CLAIM is included for a remultiplexer, a bandwidth optimized...

... an output transport stream remultiplexed from one or more input transport streams, a method for **multiplexing** a video program bearing bit stream into a second bit stream a remultiplexer for **multiplexing** a video program bearing bit stream into a second bit stream a bit stream produced by **multiplexing** a video program bearing bit stream into a second bit stream a method for timely outputting compressed **video** program **data** bearing bit streams, a remultiplexer for timely output of compressed **video** program **data** bearing bit streams, a bit stream containing compressed **video** program **data**, a method for remultiplexing one or more bit streams, a method for remultiplexing bit stream into one or more transport streams containing compressed **video** program **data**, a network distributed remultiplexer for remultiplexing one or more bit streams, a remultiplexing apparatus, a...

... USE - . For audio video programs. For selectively **multiplexing** bit streams containing one or more programs such as real time audio video programs...

Assignee name & address:

**Original Abstracts:**

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling the timely output of trans... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling...

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling ... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling

... are provided for remultiplexing program bearing data. The remultiplexing method and system are applicable to **MPEG-2** compliant transport streams carrying video programs. A descriptor based system is used for scheduling ... 116, 122, 124, 114) de paquets de transport pour decoupler la reception et la transmission **synchronisees** de paquets de transport de tout traitement asynchrone (160, 120, 130, S2, 402, S4, 404...

17/3, K/22 (Item 16 from file: 350)  
 DIALOG(R) File 350: Derwent WPI X  
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0009184603 - Drawing available  
 WPI ACC NO: 1999-108801/199910  
 XRPX Acc No: N1999-078863

Audio video synchronising method e.g. for digitally synchronising frames being output to video display - storing audio and video presentation time stamp values tables during audio demultiplexing process with audio frame numbers stored in frame counters in associated with respective presentation time stamp values during demultiplexing process

Patent Assignee: SONY CORP (SONY); SONY ELECTRONICS INC (SONY)  
 Inventor: TAN Y; TAN Y K; YU G; YU G S

Patent Family (4 patents, 27 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update	
EP 895427	A2	19990203	EP 1998305634	A	19980715	199910	B
JP 11191286	A	19990713	JP 1998227619	A	19980728	199938	E
US 5959684	A	19990928	US 1997901090	A	19970728	199947	E
JP 3215087	B2	20011002	JP 1998227619	A	19980728	200164	E

Priority Applications (no., kind, date): US 1997901090 A 19970728

**Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing Notes
EP 895427	A2	EN	20		
Regional Designated States, Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 11191286	A	JA	23		
JP 3215087	B2	JA	22		Previously issued patent JP 11191286

**Original Titles:**

... Audi o- video synchronizing

...

... Synchronisation audi o-video...

... SYNCHRONIZING METHOD FOR AUDI O AND VI DEO SI GNALS AND DI GI TAL VI DEO PROCESSOR...

... Method and apparatus for audi o-video synchronizing.

**Alerting Abstract** ... The method involves storing the audi o and video PTS values contained in the selected ones of the respective audi o and video data packets during respective audi o and video demultiplexing processes. The method stores audi o frame numbers in...

... audi o demultiplexing process. Each audi o frame counter is associated with one of the stored audi o PTS values. The method sequentially decodes the audi o and video data in the selected ones of the respective audi o and video data packets to produce the frames of audi o and video, respectively. A simultaneous playback of the...

... One of audi o frame counters is detected as having a zero value and if, audi o PTS value corresponding to the one of the audi o frame counters is retrieved. The playback of the frames of audi o and video is selectively modified to synchronise the presentation of the audi o and video to the user. The method, after the step of retrieving the audi o PTS value, provides an audi o clock extension for a system time counter approximately equal to a difference between an audi o PTS value associated with the one of the audi o frame counters and a current value of...

... counter is adjusted by the audi o clock extension. The system time counter is brought in synchronisation with the playback of the frames of audi o...

... ADVANTAGE - Synchronises playback of audi o and video frames from program source associates audi o presentation time stamp value with output audi o frame.

**Title Terms.../Index Terms/Additional Words:** SYNCHRONISATION;

Assignee name & address:

**Original Abstracts:**

A method and apparatus for synchronizing playback of audi o and video frames from a program source associates an audi o presentation time stamp ("PTS") value with an output audi o frame. Selected ones of audi o and video data packets include respective audi o and video PTS values representing desired playback times of the respective audi o and data associated therewith. The selected ones of the audi o data packets further include audi o frame numbers representing a number of output frames of audi o to be played back between the selected ones of the

audio data packets. The method comprises storing the audio and video PTS values in respective audio and video PTS tables (302, 304) during an audio demultiplexing process. In addition, the audio frame numbers are stored in frame counters (309) in association with respective PTS values during the demultiplexing process. Thereafter, the process sequentially decodes the audio and video input data to produce respective frames of audio and video which are presented to the user. With the presentation of each audio and video frame, the respective audio and video frame counters (309) are selectively decremented. Upon detecting one of the audio frame counters having a zero value, the audio PTS value for that zero value audio frame counter is retrieved. Thereafter, the playback of the audio and video frames is selectively modified so that frames of audio and video are played back in synchronization.

... A method and apparatus for synchronizing the playback of audio and video frames from a program source. The method associates an audio presentation time stamp ("PTS") value with an output audio frame. Selected ones of audio and video data packets include respective audio and video PTS values representing desired playback times of the respective audio and data associated therewith. The selected ones of the audio data packets further include audio frame numbers representing a number of output frames of audio to be played back between the selected ones of the audio data packets. The method comprises the steps of first storing the audio and video PTS values in respective audio and video PTS tables during an audio demultiplexing process. In addition, the audio frame numbers are stored in frame counters in association with respective PTS values during the demultiplexing process. Thereafter, the process sequentially decodes the audio and video input data to produce respective frames of audio and video which are presented to the user. With the presentation of each audio and video frame, the respective audio and video frame counters are selectively decremented. Upon detecting one of the audio frame counters having a zero value, the audio PTS value for that zero value audio frame counter is retrieved. Thereafter, the playback of the audio and video frames is selectively modified so that frames of audio and video are played back in synchronization. >

17/3, K23 (Item 17 from file: 350)  
 DIALOG(R) File 350: Derwent WPI X  
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0008955266 - Drawing available  
 WPI ACC NO: 1998-507901/199844  
 XRPX Acc No: N1998-396031

Method picture expert group II system with PES decoder - decoder decodes simultaneously audio and video elementary streams for providing status flags and packet data when transport stream data or program stream data are provided as PES packet data

Patent Assignee: KINSEI SHA KK (GLDS); LG ELECTRONICS INC (GLDS)  
 Inventor: LEE H; LEE H S

Patent Family (9 patents, 6 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
DE 19811292	A1	19980924	DE 19811292	A	19980316	199844 B
GB 2324432	A	19981021	GB 19985685	A	19980316	199844 E
CN 1202782	A	19981223	CN 1998108810	A	19980315	199919 E
GB 2324432	B	19990526	GB 19985685	A	19980316	199923 E
JP 11112454	A	19990423	JP 199865905	A	19980316	199927 E
KR 1998073528	A	19981105	KR 19978844	A	19970315	200001 E
US 6236432	B1	20010522	US 199841949	A	19980313	200130 E
DE 19811292	B4	20050203	DE 19811292	A	19980316	200510 E
CN 1117483	C	20030806	CN 1998108810	A	19980315	200549 E

Priority Applications (no., kind, date): KR 19978844 A 19970315; DE 19811292 A 19980316

**Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing	Notes
DE 19811292	A1	DE	11	7		
JP 11112454	A	JA	10			
KR 1998073528	A	KO		7		

**Original Titles:**

MPEG - II - System mit PES- Decoder ...  
... MPEG - II - System mit PES- Decoder ...  
... MPEG II SYSTEM WITH PEG DECODER ...  
... MPEG II system with PES decoder.

**Alerting Abstract** ... The system includes a transport stream buffer for storing transport stream data, **synchronised** with a first clock signal, in a reception sequence when a transport stream is selected...  
... in an environment with many errors. A FIFO program stream buffer stores program stream data, **synchronised** with a second clock signal, in a reception sequence when the program data of a...

... data are provided as PES packet data. A PES buffer stores the decoded PES packet **data**. An **audio** decoder and a **video** decoder restore the packet data from the PES buffer as original...

**Title Terms.../Index Terms/Additional Words:** MPEG

Assignee name & address:

**Original Abstracts:**

MPEG II system is disclosed, in which **audio / video** data **multiplexed** and transmitted in a form of program stream or transport stream depending on an ambient...

... automatically according to the form of the stream at a receiver side for presenting the **audio / video** data, including a transport stream buffer for storing transport stream data **synchronized** to a first clock signal in an order of reception if a transport stream is...

... to a first control signal, a program stream FIFO buffer for storing program stream data **synchronized** to a second clock signal in an order of reception if a program data of...

... decoder for decoding elementary streams of audio and video to a PES level on the **same** **time** to provide status flags and **packet** data if the transport stream data or the program stream data provided from the transport...

17/3, K/24 (Item 18 from file: 350)  
DIALOG(R) File 350: Derwent WPI X  
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0008264974 - Drawing available  
WPI ACC NO: 1997-373078/199734  
XRPX Acc No: N1997-309761

Information recording method - recording multi-story picture program with different branch section, by time division multiplexing into story cells  
Patent Assignee: TOSHI BA AVE KK (TOSA); TOSHI BA CORP (TCKE); TOSHI BA KK (TCKE)

Inventor: KANESHI GE T; KOJIMA T; OJIMA M; TADOKORO S; TADOKORO S

## Patent Family (36 patents, 8 countries)

Patent Number	Kind	Date	Application		Kind	Date	Update
			Number	Number			
WO 1997025714	A1	19970717	WO 1996JP3850	A	19961227	199734	B
EP 814475	A1	19971229	EP 1996943328	A	19961227	199805	E
			WO 1996JP3850	A	19961227		
JP 10027461	A	19980127	JP 1997625	A	19970107	199814	E
			JP 199778536	A	19970107		
JP 10092157	A	19980410	JP 199778536	A	19970107	199825	E
			JP 1997241271	A	19970107		
JP 10092158	A	19980410	JP 199778536	A	19970107	199825	E
			JP 1997241272	A	19970107		
JP 10092159	A	19980410	JP 199778536	A	19970107	199825	E
			JP 1997241273	A	19970107		
TW 331623	A	19980511	TW 1996115079	A	19961228	199841	E
TW 331624	A	19980511	TW 1996115080	A	19961228	199841	E
TW 331625	A	19980511	TW 1996115081	A	19961228	199841	E
TW 331626	A	19980511	TW 1996115082	A	19961228	199841	E
TW 331627	A	19980511	TW 1996115083	A	19961228	199841	E
TW 332285	A	19980521	TW 1996115084	A	19961228	199842	E
TW 332286	A	19980521	TW 1996115085	A	19961228	199842	E
TW 332287	A	19980521	TW 1996115086	A	19961228	199842	E
TW 332288	A	19980521	TW 1996115087	A	19961228	199842	E
JP 10255443	A	19980925	JP 199783931	A	19970402	199849	NCE
JP 10255444	A	19980925	JP 199783931	A	19970402	199849	NCE
			JP 1997241366	A	19970402		
JP 10255445	A	19980925	JP 199783931	A	19970402	199849	NCE
			JP 1997241367	A	19970402		
JP 10255446	A	19980925	JP 199783931	A	19970402	199849	NCE
			JP 1997241368	A	19970402		
JP 10255447	A	19980925	JP 199783931	A	19970402	199849	NCE
			JP 1997241369	A	19970402		
JP 10255448	A	19980925	JP 199783931	A	19970402	199849	NCE
			JP 1997241370	A	19970402		
US 5913010	A	19990615	US 1997780432	A	19970107	199930	E
KR 1998702709	A	19980805	WO 1996JP3850	A	19961227	199932	E
			KR 1997706116	A	19970902		

Priority Applications (no., kind, date): JP 1996986 A 19960108; JP 1997625 A 19970107; JP 199783931 A 19970402; JP 1997241366 A 19970402; JP 1997241367 A 19970402; JP 1997241368 A 19970402; JP 1997241369 A 19970402; JP 1997241370 A 19970402

## Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
WO 1997025714	A1	JA	96	36		
National Designated States, Original:					CN KR	
Regional Designated States, Original:					DE FR GB NL	
EP 814475	A1	EN	54	37	PCT Application	WO 1996JP3850
					Based on OPI patent	WO 1997025714
Regional Designated States, Original:					DE FR GB NL	
JP 10027461	A	JA	30	37	Division of application	JP 1997625
JP 10092157	A	JA	28	37	Division of application	JP 199778536
JP 10092158	A	JA	28	37	Division of application	JP 199778536
DE 69627992	E	DE			Application	EP 1996943328
					PCT Application	WO 1996JP3850
					Based on OPI patent	EP 814475
					Based on OPI patent	WO 1997025714

... recording multi-story picture program with different branch section, by time division multiplexing into story cells

**Alerting Abstract** . . . is recorded with the branch stories divided into a plurality of cells by time-division **multiplexing** .

**Title Terms** . . . / Index Terms/ Additional Words: **MULTI PLEX** ;

Assignee name & address:

**Original Abstracts**:

. . . into multiple cells and the cells of the respective branch stories are recorded time-division **multiplexed** .

. . . into multiple cells and the cells of the respective branch stories are recorded time-division **multiplexed** .

. . . into multiple cells and the cells of the respective branch stories are recorded time-division **multiplexed** .

. . . into multiple cells and the cells of the respective branch stories are recorded time-division **multiplexed** .

**Claims**:

. . . divided into multiple cells and cells of the respective branch scenes are recorded time-division **multiplexed** .

. . . in mehrere Szenenzellen aufgeteilt sind, und Szenenzellen der jeweiligen Verzweigungsszenen zeitmultiplex als mehrere verschachtelte Einheiten (VOBU) aufgezeichnet sind; <br> wobei die verschachtelten Einheiten einen Navigationspack (NV . . .

. . . PCK) aufweisen; <br> <b>dadurch gekennzeichnet, dass</b><br> jedes der Navigationspacks eine Kategorie-Information (VOBU

. . . multiple scene cells, and scene cells of the respective branch scenes are recorded time-division **multiplexed** as multiple interleaved units (VOBU); the interleaved units including a navigation pack (NV

. . . PCK); <b>characterized in that</b><br>each of the navigation packs comprises category information (VOBU  
. . . de scene, et les cellules de scene des scenes de branches respectives sont enregistrees en **multiplex** temporel sous la forme de multiples unites entre l'aces (VOBU); <br>les unites entre l'aces incluant un regroupement de navigation (NV

. . . PCK); <br><b>caractereise en ce que</b><br>chacun des groupements de navigation comprend une information de categorie (VOBU

. . . . . between a branch point at which a preceding main scene of a video program comprising **video**, **sound** or **text** or any combination of **video**, **sound** and **text** branches off and a connection point . . .

. . . number m of cells; arranging cells of the respective branch scenes to be time-division **multiplexed**; and determining the number of cells, m such that, supposing that said branch scenes are . . .

. . . of coding, a jump time  $T_j$  between cells in a shortest scene  $B_0$  is where  $V_i$  = amount of coding for  $B_i$ ,  $J_p$  = amount of coding over which jump can be made. . . one scene to another is allowed, each of said interleaved units including a plurality of **video** packets **obtained** by compressing **video** **data** in the form of packets and a plurality of audio packets obtained by compressing audio **data** in the form of packets, each of said interleaved units further including a navigation pack located at . . .

. . . said interleaved units corresponding to the respective branch scenes

being recorded on the recording tracks in a physically mixed state and being readable, the number of divisions of each interleaved unit being determined to satisfy at least the following formula:  $T_p > T_s$ , where  $T_p$  is an actual playback time required for reproducing video data corresponding to an interleaved unit stored in a buffer, and  $T_s$  is a read time...

... comprising: a pickup for reading information from the disk; a demodulator for performing demodulating processing with respect to a read signal; means for determining addresses of the next-interleaved units to be...

... at least the following formula:  $T_p > T_s$ , where  $T_p$  is an actual playback time required for reproducing video data corresponding to a reproduction interleaved unit stored in a buffer, and  $T_s$  is a read...

... A recording disk comprising: a data area where data to be decoded is recorded; control data required for reproducing said data from said data area; a multi-scene program stored in said data...

... and each of said interleaved units including a plurality of video packets obtained by compressing video data in the form of packets, a plurality of audio packets obtained by compressing audio data in the form of packets, a navigation pack located at a start position and serving as...

... said interleaved units corresponding to a selected scene are reproduced, and wherein said navigation pack describes information indicative of the mixed-state arrangement of interleaved units of different scenes, contains addresses indicative of next interleaved units representing jump destinations of each scene, and contains audio stopping time information...

... are jump destinations of each scene, and wherein each of said interleaved units corresponds to a video playback time of predetermined length and includes a plurality of compressed video packets and a plurality of compressed audio packets, and wherein said branch scenes are assigned as  $B_{<b>0</b>}$ ,  $B_{<b>1</b>}$ ,  $B_{<b>2</b>}$ , ...  $B_i$ , ... in the order... number of other interleaved units which are inserted between interleaved units that are time-division multiplexed in the shortest scene  $B_{<b>0</b>}$ , and given the above variable assignments, a jump time  $T_{jp}$  between interleaved units in the shortest branch scene  $B_{<b>0</b>}$  is defined as: [MATH. 0005] a shortest playback time  $T_p$  for a unit interleaved unit in the shortest branch scene  $B_{<b>0</b>}$  is expressed...

... referring to the addresses of the next interleaved units corresponding to the scene included in the control data; and means for determining jump destinations of said next interleaved units corresponding to respective scenes...

... switching from one scene to another is allowed; each of said interleaved units including a plurality of video packets obtained by compressing video data in the form of packets, a plurality of audio packets obtained by compressing audio data in the form of packets, a navigation pack located at a start position and serving as said control data, and video frame data situated first in each of said interleaved units and used as a reference when data compressed in accordance with a frame-correlated compression scheme is decoded, wherein said interleaved units corresponding to the respective scenes are recorded...

... A recording disc containing a data area for recording data to be decoded, and which stores management data required for reproducing data from the data area, said data area storing control data and having an interleaved unit block section, video signals of a plurality of scenes being divided into a plurality of interleaved units, the interleaved units of different scenes being arranged on recording tracks of the interleaved... interleaved units, and said synchronous information including

an address of an audio pack to be **synchronized**.

**17/3, K/25 (Item 19 from file: 350)**  
 DIALOG(R) File 350: Derwent WPI X  
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0008180527 - Drawing available  
 WPI ACC NO: 1997-283408/199726  
 Related WPI Acc No: 2004-670965  
 XRPX Acc No: N1997-234668

Processing digital audio data from packetised data stream - monitoring  
 PIDs for packets carried in data stream to detect audio packets, storing  
 data in buffer for output later, monitoring packets to detect PTSs and  
 comparing to find temporal state to adjust data

Patent Assignee: GEN INSTR CORP (GENN); GEN INSTR CORP DELAWARE (GENN)

Inventor: MORONEY P; NUBER R; WALKER G; WALKER G K

Patent Family (12 patents, 10 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
EP 776134	A2	19970528	EP 1996118657	A	19961121	199726 B
TW 297976	A	19970211	TW 1996104561	A	19960417	199726 E
CA 2190688	A	19970523	CA 2190688	A	19961119	199738 E
US 5703877	A	19971230	US 1995562611	A	19951122	199807 E
MX 199605765	A1	19970501	MX 19965765	A	19961122	199823 E
KR 1997032167	A	19970626	KR 199656372	A	19961122	199828 E
BR 199605667	A	19980818	BR 19965667	A	19961122	199839 E
CA 2190688	C	19991012	CA 2190688	A	19961119	200008 E
MX 197137	B	20000623	MX 19965765	A	19961122	200133 E
CN 1160328	A	19970924	CN 1996120844	A	19961122	200143 E
KR 298963	B	20011105	KR 199656372	A	19961122	200240 E
CN 1129325	C	20031126	CN 1996120844	A	19961122	200568 E

Priority Applications (no., kind, date): US 1995562611 A 19951122

**Patent Details**

Number	Kind	Lang	Pg	Dwg	Filing	Notes
EP 776134	A2	EN	22	5		
Regional Designated States, Original					DE FR GB	
TW 297976	A	ZH				
CA 2190688	A	EN				
US 5703877	A	EN	19	5		
BR 199605667	A	PT				
CA 2190688	C	EN				
KR 298963	B	KO				Previously issued patent KR 97032167

Processing digital audio data from packetised data stream..

**Original Titles:**

...Error recovery of audio data carried in a packetized data stream..

...Acquisition and error recovery of audio data carried in a packetized data stream

**Alerting Abstract** ... The digital audio data processing method involves monitoring the packet identifiers (PID) for the packets carried in the data stream (40) to detect audio packets, some carrying audio presentation time stamps (PTS). The data is stored in a buffer for output later. The packets are monitored to...

...on an ongoing basis in response to the comparison. Preferably, the time at which the audio data is output from the buffer is dependent upon an offset value added to the PTS to provide proper lip synchronization by

accounting for a **video signal** processing delay...

... USE/ADVANTAGE - For acquiring **audio data** from packetised data stream and recovery from errors contained in such data. Minimises aural impact of **audio data** errors. Adjusts timing at which **audio data** is output from decoder's audio buffer on ongoing basis.

Assignee name & address:

**Original Abstracts:**

**Audio data** is processed from a packetized data stream carrying digital television information in a succession of **fixed length transport packets**. Some of the **packets** contain a presentation time stamp ( **PTS** ) indicative of a time for commencing the output of associated **audio data**. After the **audio data** stream has been acquired, the detected **audio packets** are monitored to locate subsequent **PTS**'s for adjusting the timing at which **audio data** is output, thereby providing proper lip **synchronization** with associated **video**. Errors in the **audio data** are processed in a manner which attempts to maintain **synchronization** of the **audio data** stream while **masking** the errors. In the event that the **synchronization** condition cannot be maintained, for example in the presence of errors over more than one **audio frame**, the **audio data** stream is reacquired while the **audio output** is concealed. An error condition is signalled to the **audio decoder** by altering the **audio synchronization** word associated with the **audio frame** in which the error has occurred...

... **Audio data** is processed from a packetized data stream carrying digital television information in a succession of **fixed length transport packets**. Some of the **packets** contain a presentation time stamp ( **PTS** ) indicative of a time for commencing the output of associated **audio data**. After the **audio data** stream has been acquired, the detected **audio packets** are monitored to locate subsequent **PTS**'s for adjusting the timing at which **audio data** is output, thereby providing proper lip **synchronization** with associated **video**. Errors in the **audio data** are processed in a manner which attempts to maintain **synchronization** of the **audio data** stream while **masking** the errors. In the event that the **synchronization** condition cannot be maintained, for example in the presence of errors over more than one **audio frame**, the **audio data** stream is reacquired while the **audio output** is concealed. An error condition is signalled to the **audio decoder** by altering the **audio synchronization** word associated with the **audio frame** in which the error has occurred.

**Claims:**

1. A method for processing digital **audio data** from a packetized data stream carrying digital television information in a succession of **fixed length transport packets**, each of said **packets** including a **packet identifier ( PID )**, some of said **packets** containing a **program clock reference ( PCR )** value for **synchronizing** a **decoder** system **time clock ( STC )**, and some of said **packets** containing a presentation time stamp ( **PTS** ) indicative of a time for commencing the output of associated data for use in reconstructing a television...

... of: </br> monitoring the **PID's** for the **packets** carried in said data stream to detect **audio packets**, some of said **audio packets** carrying an **audio PTS**; </br> storing **audio data** from the detected **audio packets** in a buffer for subsequent output; </br> monitoring the detected **audio packets** to locate **audio PTS**'s; </br> comparing a time derived from said **STC** with a time derived from the located **audio PTS**'s to determine whether said **audio packets** are too **early** to decode, too late to decode, or ready to be decoded; and</br> adjusting the time at which said stored **audio data** is output from said buffer on an ongoing basis in **response** to said comparing step...

17/3, K/26 (Item 20 from file: 350)  
 DIGITAL File 350: Derwent WPI X  
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0007720557 - Drawing available  
 WPI ACC NO: 1996-343733/199635  
 Related WPI Acc No: 1998-534136  
 XRPX Acc No: N1996-289357

Recording medium with navigation data for reproduction of MPEG2 digital video data, e.g. optical disc - has navigation pack at head of data pack trains storing playback information on data packs and navigation information indicating relationship with other data units for reproduction of the playback data information

Patent Assignee: TOSHIBA AVE KK (TOSA); TOSHIBA CORP (TCKE); TOSHIBA KK (TCKE)

Inventor: ARAFUNE T; KIKUCHI S; KITAMURA T; MIMURA H; NIIFUNA T; TAIKAWA K; TAMADA Y

Patent Family (20 patents, 19 countries)

Patent Number	Kind	Date	Number	Kind	Date	Update
EP 724264	A2	19960731	EP 1996101282	A	19960130	199635 B
CA 2168327	A	19960731	CA 2168327	A	19960129	199646 E
JP 8273304	A	19961018	JP 199614580	A	19960130	199701 E
EP 724264	A3	19970409	EP 1996101282	A	19960130	199728 E
CN 1134583	A	19961030	CN 1996101106	A	19960130	199803 E
KR 1997005028	A	19970129	KR 19962555	A	19960130	199808 E
			KR 199613695	A	19960430	

Priority Applications (no., kind, date): JP 199513164 A 19950130

Patent Details

Number	Kind	Lang	Pg	Dwg	Filing	Notes
EP 724264	A2	EN	69	51		
Regional Designated		States, Original:	AT BE CH DE ES FR GB IT LI LU NL SE			
CA 2168327	A	EN				
JP 8273304	A	JA	52			
EP 724264	A3	EN				
KR 1997005028	A	KO			Division of application	KR 19962555

Recording medium with navigation data for reproduction of MPEG2 digital video data, e.g. optical disc...

Alerting Abstract... time. Each data unit is composed of several data pack trains obtained by compressing playback data containing audio data, video data and sub picture data into packets (87, 88, 90 and 91)

Assignee name & address:

Original Abstracts:

In a super density optical disk (10) for storing video data, video data is compressed to packs (88, 89, 90, 91) defined in MPEG and trains of the packs (88, 89, 90, 91) are stored in a video object unit (85). The video object unit (85) includes a navigation pack (86) which is placed at the head of the pack...

... cells (84). The navigation pack (86) has an area storing playback information for reproducing each video object unit (85) and search information for indicating the relationship with other video object units (85). The...

... In a super density optical disk for storing video data, wherein data video is compressed to packs defined in MPEG and trains of the packs are stored in a video object unit. The video object unit includes a navigation pack which is placed at the head of the pack train.

In...

... of the cells. The navigation pack has an area storing playback information for reproducing each **video object unit** and search information for indicating the relationship with other video object units. The data cells...

... In a super density optical disk for storing **video data**, wherein **video data** is compressed to packs defined in **MPEG** and trains of the packs are stored in a **video object unit**. The **video object unit** includes a navigation pack which is placed at the head of the pack train. In...

... of the cells. The navigation pack has an area storing playback information for reproducing each **video object unit** and search information for indicating the relationship with other video object units. The data cells...

**Claims:**

... of data pack trains obtained by compressing playback data containing at least any one of **audio data**, **video data**, and sub- **picture data** into packets (87, 88, 90, 91) and a navigation pack (86) placed at the head ...

... 1. Aufzeichnungstraeger, umfassend: </br> eine Anzahl von Dateneinheiten (85, **VOBU**), die in einer vorbestimmt. Playback-Reihenfolge zu reproduzierende bzw. wiederzugebende Playback-Daten enthalten, </br> wobei jede Dateneinheit (82, **VOBU0**) mindestens eine vorbestimmt. Dateneinheit umfasst, </br> wobei jede Dateneinheit mindestens eines von Videopacks, Audiopacks...

... und einem Paket reproduzierbarer, codierter Video-, Audio- oder Überlagerungsbits aufgebaut ist, wobei die Videodaten gemäss **MPEG**-Standards komprimiert und codiert sind, </br> wobei jede Dateneinheit eine am Anfang der Sequenz angeordnetes...

## ~~Non-Patent Literature Abstracts

File 2: INSPEC 1898-2008/Aug W  
(c) 2008 Institution of Electrical Engineers

File 6: NTIS 1964-2008/Sep W  
(c) 2008 NTIS, Int'l Copyright All Rights Res

File 8: EI Compendex(R) 1884-2008/Aug W  
(c) 2008 Elsevier Eng. Info. Inc.

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(c) 2008 The Thomson Corp

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(c) 2008 ProQuest Info&Learning

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(c) 2008 CSA

File 57: Electronics & Communications Abstracts 1966-2008/Jul  
(c) 2008 CSA

File 60: ANTE: Abstracts in New Tech & Engineer 1966-2008/Jul  
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File 95: TEMA-Technology & Management 1989-2008/Aug W  
(c) 2008 FIZ TECHNIK

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(c) 2008 The HW Wilson Co.

File 99: Wilson Appl. Sci & Tech Abs 1983-2008/Aug  
(c) 2008 The HW Wilson Co.

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(c) 2002 The Gale Group

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(c) 2001 ProQuest Info&Learning

File 483: Newspaper Abs Daily 1986-2008/Sep 02  
(c) 2008 ProQuest Info&Learning

Set	Items	Description
S1	30087	(AUDIO OR SOUND) (1N) (SIGNAL OR DATA OR INFORMATION)
S2	116391	(VIDEO OR STILL OR PICTURE OR PHOTOGRAPH) (1N) (SIGNAL? OR DATA OR INFORMATION OR FRAME? ?)
S3	358307	PACKET? ? OR PACK OR PACKS
S4	14941	(FIXED OR SET OR PRESET OR PREDETERMINED) (1N) LENGTH?
S5	194245	(1 OR ONE OR FIXED) (2N) RATIO
S6	15589637	TIME OR PERIOD OR PHASE? ? OR DURATION? ? OR INTERVAL? ?
S7	629971	S6(3N) (SAME OR EQUAL OR SIMILAR OR IDENTICAL OR EQUIVALENT OR MATCHING)
S8	183172	MOVING() PICTURE? ? OR MPEG? OR VIDEO() OBJECT() UNIT OR VOLUME OR PTS
S9	1704	(P OR B OR PREDICTIVE OR BIDIRECTIONAL?) (2N) PICTURE?
S10	21556	AU=(TOM TA, Y? OR TOM TA Y? OR YOSHINOJI (1N) TOM TA OR ISHI-ZUKA, S? OR ISHI-ZUKA S? OR SHIGEKI (1N) ISHI-ZUKA OR UENO, K? OR UENO K? OR KATSUHIKO (1N) UENO OR ONO, Y? OR ONO Y? OR YOSHII RYO (1N) ONO)
S11	45	S10 AND (S1 OR S2)
S12	25	RD (unique items)
S13	5	S12 AND (SYNCHRONIZ? OR SYNCHRONIS? OR CORRELAT? OR MULTIPLEX? OR ENCOD???)
S14	3476	S1 AND S2
S15	7758	S3 AND (S4 OR S5 OR S7)

S16 9 S14 AND S15  
S17 3 S16 AND (S8 OR S9)  
S18 3 RD (unique items)

13/3, K/1 (Item 1 from file: 2)

DIALOG(R) File 2: INSPEC

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06751901 INSPEC Abstract Number: B9712-6420-027

Title: Development of optical video / audio signal distribution network of Fuji Television's new broadcast center

Author(s): Shiozawa, T.; Makita, H.; Murakami, M.; Shimotsaka, N.; Tan-No, T.; Ueno, K.; Kamiya, C.; Ando, S.

Author Affiliation: NEC Corp., Japan

Conference Title: IBC - International Broadcasting Convention (Conf. Publ. No. 447) p. 235-9

Publisher: IEE, London, UK

Publishing Date: 1997 Country of Publication: UK xvi +710 pp.

ISBN: 0 85296 694 6 Material Identity Number: XX97-01374

Conference Title: Proceedings of International Broadcasting Conference

Conference Sponsor: IEE; IEEE; Inst. Assoc. Broadcasting Manufacturers; R. Tel ev. Soc.; Soc. Cable Telecommun. Eng.; Soc. Motion Picture & Tel ev. Eng

Conference Date: 12-16 Sept. 1997 Conference Location: Amsterdam Netherlands

Language: English

Subfile: B

Copyright 1997, IEE

Title: Development of optical video / audio signal distribution network of Fuji Television's new broadcast center

Author(s): Shiozawa, T.; Makita, H.; Murakami, M.; Shimotsaka, N.; Tan-No, T.; Ueno, K.; Kamiya, C.; Ando, S.

Abstract: been installed and are now fully operational. The broadcast center employs a newly developed optical video / audio signal distribution network. This paper describes the system structure and performance of the optical network. A wavelength-division and time division hybrid multiplexed (WD/TD) optical network has been used in the broadcast center. This type of optical...

multiple format handling, and flexible operation capabilities. The optical network utilizes 16-channel wavelength-division multiplexing (WDM) technology and 16-channel time division multiplexing (TDM) technology for 143 Mb/s NTSC composite video signals (TDM high-way speed: 2.29 Gb/s). By using these technologies, the optical network distributes about 150 digital NTSC composite video signals combined with audio signals, together with about 15 HDTV signals (1.5 Gb/s), to...

Descriptors: time division multiplexing; ...

video signals; ...

wavelength division multiplexing

Identifiers: optical video / audio signal distribution network...

wavelength division multiplexing; ...

time division multiplexing; ...

NTSC composite video signals; ...

13/3, K/2 (Item 1 from file: 60)

DIALOG(R) File 60: Abstracts in New Tech & Engineer

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0001628232 IP ACCESSION NO: 20080982081  
**Video camera with image shift correction**

Ishizuka, Shigeaki ; Sasaki, Takayuki ; Takahashi, Takao

, USA

PUBLISHER URL:

http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=H1TOFF&u=/net/ahtrml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=5585843. PN. &OS=pn/ 5585843&RS=PN/ 5585843

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: ANTE: Abstracts in New Technologies and Engineering

Ishizuka, Shigeaki ; Sasaki, Takayuki ; Takahashi, Takao

**ABSTRACT:**

... means which detects an amount of an image shift by the use of a field correlation of the image information outputted from image pick-up means. The image information is corrected...

... the image shift amount detection means in image shift correction means, and then converted into video signals representing consecutive add and even fields in a cycle of a field in video signal conversion means so that the image shift can be corrected with degradation in picture quality

...

DESCRIPTIONS: Images; Cameras; Video signals; Degradation; Conversion

13/3, K/3 (Item 2 from file: 60)  
DIALOG(R) File 60: ANTE: Abstracts in New Tech & Engineering  
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0001318323 IP ACCESSION NO: 20081064779

**Digital video/audio recording and reproducing apparatus**

Sugiyama, Kazuhiro; Onishi, Ken; Hongo, Kimitoshi; Ono, Yukari

, USA

PUBLISHER URL:

http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=H1TOFF&u=/net/ahtrml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=5434716. PN. &OS=pn/ 5434716&RS=PN/ 5434716

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: ANTE: Abstracts in New Technologies and Engineering

Sugiyama, Kazuhiro; Onishi, Ken; Hongo, Kimitoshi; Ono, Yukari

**ABSTRACT:**

A digital video/audio recording and reproducing apparatus comprising a video signal high-efficiency encoder having a variable reduction rate, an audio signal high-efficiency encoder having a variable reduction rate, and a controller for controlling the reduction rates in both of the high-efficiency encoders. The reduction rates in both of the high-efficiency encoders are controlled in such a manner that the sum of

the information amount of the **video signal** and that of the **audio signal**, after high-efficiency **encoding**, is maintained constant. When recording multi-channel audio signals, the reduction rates in both of the high-efficiency **encoders** are controlled according to the number of **audio signal** channels to be recorded. The high frequency components of the high-efficiency **encoded** video and audio signals are recorded at the end portions of recording tracks on a...

DESCRIPTIONS: **Audio signals; Encoders; Recording; Reduction; Coders; Video signals; Channels; High frequencies; Low frequencies; Encoding; Magnetic tape**

13/3, K/4 (Item 3 from file: 60)  
DI ALOG(R) File 60: ANTE: Abstracts in New Tech & Engineering  
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0000905053 IP ACCESSION NO: 2008507357  
**Methods of efficiently recording and reproducing an audio signal in a memory using hierarchical encoding**

Sugiyama, Kazuhiro; Ono, Yukari; Ishida, Yoshinobu

, USA

PUBLISHER URL:

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=H1TOFF&u=/net/ahm/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=5864801.PN.&OS=pn/5864801&RS=PN/5864801>

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: ANTE: Abstracts in New Technologies and Engineering

**Methods of efficiently recording and reproducing an audio signal in a memory using hierarchical encoding**

Sugiyama, Kazuhiro; Ono, Yukari; Ishida, Yoshinobu

**ABSTRACT:**

An **audio signal** is recorded in a semiconductor memory in a plurality of hierarchical levels, with the lowest...

...in the memory, indicating the number of hierarchical levels recorded therein, for subsequent reproduction. The **audio signal** can furthermore be recorded in variable-length frames and reproduced at high speed by reading...

DESCRIPTIONS: **Semiconductors; Frames; Audio signals; Reproduction; Recording; Encoding; High speed; Integers**

13/3, K/5 (Item 4 from file: 60)  
DI ALOG(R) File 60: ANTE: Abstracts in New Tech & Engineering  
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0000724118 IP ACCESSION NO: 2008432258  
**Apparatus for controlling a sum of varying information amount of a video signal and a varying information amount of an audio signal so that the sum is within a predetermined amount of data range**

Sugiyama, Kazuhiro; Onishi, Ken; Hongo, Kimitoshi; Ono, Yukari

, USA

PUBLISHER URL:

http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=H1TOFF&u=/net/ahm/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=5889921.PN.&OS=pn/5889921&RS=PN 5889921

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: ANTE: Abstracts in New Technologies and Engineering

Apparatus for controlling a sum of varying information amount of a video signal and a varying information amount of an audio signal so that the sum is within a predetermined amount of data range

Sugiyama, Kazuhiko; Onishi, Ken; Hongo, Kimitoshi; Ono, Yukari

ABSTRACT:

A digital video/audio recording and reproducing apparatus comprising a video signal high-efficiency encoder having a variable reduction rate, an audio signal high-efficiency encoder having a variable reduction rate, and a controller for controlling the reduction rates in both of the high-efficiency encoders. The reduction rates in both of the high-efficiency encoders are controlled in such a manner that the sum of the information amount of the video signal and that of the audio signal, after high-efficiency encoding, is maintained constant. When recording multi-channel audio signals, the reduction rates in both of the high-efficiency encoders are controlled according to the number of audio signal channels to be recorded. The high frequency components of the high-efficiency encoded video and audio signals are recorded at the end portions of recording tracks on a...

DESCRIPTIONS: Audio signals; Encoders; Reduction; Coders; Recording; Video signals; Channels; High frequencies; Low frequencies; Encoding; Magnetic tape

18/3, K/1 (Item 1 from file: 2)

DIALOG(R) File 2: INSPEC

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10836140

Title: The research of active network congestion control algorithm based on operational data

Author(s): Jingyang Wang; Xiaohong Wang; Huiyong Wang; Min Huang; Li Na Ma; Zhengtao Pan

Author Affiliation: Hebei Univ. of Sci. & Technol., Shijiazhuang, China  
Conference Title: 2007 2nd International Conference on Communications and Networking in China, p. 593-7

Publisher: IEEE, Piscataway, NJ, USA

Publish Date: 2007 Country of Publication: USA

ISBN: 978-1-4244-1008-8 Material Identity Number: YXA8-1900-432

Conference Title: 2007 2nd International Conference on Communications and Networking in China

Conference Date: 22-24 Aug. 2007 Conference Location: Shanghai, China

Language: English

Subfile: B C

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Abstract: of FACC, MFACC applies different processing methods to different kinds of operational data (such as video data, audio data, file data and message data) because of the different characteristics and requests on network resources...

... kinds of operational data, reduces the package loss rate and decreases the processing delay of **packets**. However, when active node starts just now or the network is idle, many active detection messages will be produced, the network resource will be wasted seriously. At the **same time**, there is also some limitations in processing **video data**, because it only aims at **MPEG format**.

...Identifiers: **MPEG format**

**18/3, K/2 (Item 1 from file: 8)**

DI ALOG(R) File 8: EI Compendex(R)  
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12287430 E. I. No: EI P082211277295

**Title: The research of active network congestion control algorithm based on operational data**

Author: Wang, Jingyang; Wang, Xiahong; Wang, Huiyong; Huang, Min; Ma, Linan; Pan, Zhengtao

Corporate Source: College of Information Science and Engineering Hebei University of Science and Technology, Shijiazhuang Hebei 050054, China

Conference Title: 2007 2nd International Conference on Communications and Networking in China, ChinaCom 2007

Conference Location: Shanghai, China Conference Date: 20070822-20070824

E. I. Conference No.: 72086

Source: Proceedings of the Second International Conference on Communications and Networking in China, ChinaCom 2007 Proceedings of the Second International Conference on Communications and Networking in China, ChinaCom 2007 2008.

Publication Year: 2008

ISBN: 9781424410095

DOI: 10.1109/CHINACOM.2007.4469366

Article Number: 4469366

Language: English

...Abstract: of FACC, MFACC applies different processing methods to different kinds of operational data (such as **video data**, **audio data**, **file data** and **message data**) because of the different characteristics and requests on network resources...

... kinds of operational data, reduces the package loss rate and decreases the processing delay of **packets**. However, when active node starts just now or the network is idle, many active detection messages will be produced, the network resource will be wasted seriously. At the **same time**, there is also some limitations in processing **video data**, because it only aims at **MPEG format**. 11 Refs.

**18/3, K/3 (Item 1 from file: 60)**

DI ALOG(R) File 60: ANTE: Abstracts in New Tech & Engineering  
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0000708208 IP ACCESSION NO: 2008264711

Information recording apparatus and method, and information recording medium on which information is recorded by using them

Ito, Masanori; Shimoshiro, Masafumi; Matsuda, Makoto; Nakamura, Tadashi; Hino, Yasumori

, USA

PUBLISHER URL:

http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HTML&u=/net/ahm/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=7333713. PN. &OS=pn/7333713&RS=PN/7333713

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: ANTE: Abstracts in New Technologies and Engineering

ABSTRACT:

In a disk camera, when additional information and **moving picture information** are managed as one file and recorded on an optical disk, useless area is minimized...

... to a logical block of the optical disk, at least one of input video and **audio information** in a **packet** format of a **fixed length** that is different from a data size of the logical block, and creates a data...

... recording with respect to the logical block, additional information with respect to the video or **audio information** in the **packet** format of the **fixed length**. In this one data file, a fixed data size portion of the additional information is arranged in an area ahead of an area in which the video and **audio information** are arranged, and a variable data size portion of the additional information is arranged in an area behind the area in which the video and **audio information** are arranged.

~~Non-Patent Literature Full-Text

File 9: Business & Industry (R) Jul / 1994-2008/ Aug 26  
     (c) 2008 The Gale Group

File 15: ABI / Inform (R) 1971-2008/ Sep 03  
     (c) 2008 ProQuest Info & Learning

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File 696: DIALOG Telecom Newsletters 1995-2008/ Sep 03  
     (c) 2008 Digital

File 810: Business Wire 1986-1999/ Feb 28  
     (c) 1999 Business Wire

File 813: PR Newswire 1987-1999/ Apr 30  
     (c) 1999 PR Newswire Association Inc

Set	Items	Description
S1	83579	(AUDIO OR SOUND) (1N) (SIGNAL OR DATA OR INFORMATION)
S2	521269	(VIDEO OR STILL OR PICTURE OR PHOTOGRAPH) (1N) (SIGNAL? OR DATA OR INFORMATION OR FRAME? ?)
S3	1989658	PACKET? ? OR PACK OR PACKS
S4	11762	(FIXED OR SET OR PRESET OR PREDETERMINED) (1N) LENGTH?
S5	493884	(1 OR ONE OR FIXED) (2N) RATIO
S6	42493030	TIME OR PERIOD OR PHASE? ? OR DURATION? ? OR INTERVAL? ?
S7	5541339	S6 (3N) (SAME OR EQUAL OR SIMILAR OR IDENTICAL OR EQUIVALENT

OR MATCHING  
S8 398140 MOVING? PICTURE? ? OR MPEG? OR VIDEO() OBJECT() UNIT OR VCBU  
OR PTS  
S9 9447 (P OR B OR PREDICTIVE OR BI-DIRECTINAL?) (2N) PICTURE?  
S10 1261 AU=(TOM TA, Y? OR TOM TA Y? OR YOSHI NORI (1N) TOM TA OR I SHI-  
ZUKA, S? OR I SHIZUKA S? OR SHIGEKI (1N) I SHIZUKA OR UENO, K? OR  
UENO K? OR KATSUHIKO (1N) UENO OR ONO, Y? OR ONO Y? OR YOSHIHIRO  
(1N) ONO)  
S11 14422 S1(4S) S2  
S12 0 S10 AND S11  
S13 0 S10 AND S1  
S14 0 S10 AND S2  
S15 5177 S3(10N)(S4 OR S5 OR S7)  
S16 21 S11 AND S15  
S17 13 S16 AND (S8 OR S9)  
S18 13 S17 AND (SYNCHRONIZ? OR SYNCHRONIS? OR CORRELAT? OR MULTIPLEX?  
OR ENCOD???)  
S19 10 RD (unique items)

19/3, K/1 (Item 1 from file: 15)  
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02363354 117541748  
Enhancing the quality of low bit-rate real-time Internet communication  
services  
Hui, Schubert Foo Siu Cheung; Yip, See Wai  
Internet Research v9n3 PP: 212-224 1999  
ISSN: 1066-2243 JRNLD CODE: NTRS  
WORD COUNT: 6316

... TEXT: techniques even in low bit-rate situations. Even if it is possible to send live video data across the Internet, it is not cost-effective and not the best means of utilising precious bandwidth. For example, in the situation of a typical video-conferencing application, the video frames are essentially a series of "head and shoulder" images with little changes in-between frames...

... used to minimise delay jitters. Dynamic rate control is used to eliminate the impact of audio / video data packet loss. Packet lost replacement is used to simulate the lost packets through the use...

... transmission of silent audio packets, thereby decreasing unnecessary bandwidth usage. Finally, in cases when no video frames are transmitted during a congested network condition, a virtual play-out mechanism can be used to play out past video frames instead of freezing the play-out. The use of virtual play-out attempts to give...

... based on the assumption that there are generally few changes in a series of captured video frames as the objects involved in the scene do not move about very often and that... delivery monitoring. Applications typically run RTP on top of UDP to make use of its multiplexing and checksum services.

RTP itself does not provide any mechanism to ensure timely delivery or...

... RTP consists of two closely-linked parts:

- Real-time transport protocol (RTP) specifies how the audio - video data is packetised. This protocol can be used to transport different type of real-time media...

... various real-time communication services require real-time, continuous

media service to transfer audio and **video data** between senders and recipients. This implies that TCP and other reliable transport protocols are inappropriate...  
... system, TCP may be more appropriate since it requires less programming effort and at the **same time**, guarantees the delivery of every data **packet**. Nonetheless, with sufficiently long buffering and adequate average network throughput, near-real-time delivery using...

... and compression; RTP packets generation; and dynamic rate control.

#### Data acquisition and compression

Video and **audio data** are acquired through their respective capturing devices and ... for efficient transmission of data packets and to reduce the required bandwidth.

The size of **video frames** can be greatly reduced with the use of compression methods such as discrete cosine transform (DCT) used in JPEG (Pennebaker and Mitchell, 1993) and motion compensation algorithm used in **MPEG** (ISO Standard 11172-1, 1993). A compression ratio of 1:15 is usually achievable with JPEG and **MPEG** compression. As **MPEG** compression is computationally intensive and real-time **MPEG** video compression requires the use of specialised **MPEG encoder** card to achieve acceptable compression rate of at least 15 frames per second (fps), the...  
... high compression ratio is chosen for implementation. Furthermore, JPEG compression is less computational intensive than **MPEG**. Transmitting **MPEG** streams using UDP can be complicated as the loss of a principal frame in the **MPEG** stream can render the usefulness of other intermediate frames owing to their inter-dependency. The...

... dynamic adjustment of compression quality and ratio is required to adapt to different network conditions.

**Audio data** are captured through the microphone connected to the sound card and compressed using various audio codecs. The compression algorithms reduce the audio sample size in raw audio PCM format by **encoding** it in another format. Common compression algorithms include A-law, m-law (CCITT, 1984), adaptive...

... lower information rate, it can be conveniently used to compress previous audio packets into "redundant" **audio information** and bundled together with the current sample to form an **audio data** packet. When the need arises, the redundant information is used for packet lost replacement to...

... non-redundant audio) to its uncompressed format that is ready to be played.

Additionally, the **audio data** acquisition supports silence deletion to eliminate, and thus prevent useless silent audio packets from being...

... superior performance and simplicity among existing silent deletion algorithms.

#### RTP packets generation

Each audio and **video data** packet is linearly time-stamped to indicate the instant of sampling. Although the transmission is...

... in the time-stamp field of the RTP header of each video packet. Since each **video frame** is discrete, a single frame should not be packetised into multiple packets, as the original **video frame** will not be recoverable once a packet is lost. This is especially true when the Internet is used as the transmission medium. Hence, a video packet should encapsulate one complete **video frame** before transmission.

**Audio data** are packetised in intervals of 20ms so that the time-stamp mechanism uses 20 as...

... packet generated. The time-stamp is stored in the field preceding the actual and redundant **audio data** to form an audio packet that is transmitted across the network.

Dynamic rate control

Dynamic... out-of-order, late delivery and jitters experienced by the data packets. Incoming audio and **video data** packets are ordered and arranged in the correct order according to the time-stamp and stored using a ring buffer.

Information pertaining to each individual **video frame** such as time-stamp is also stored to facilitate the play-out process. The buffers...

... on disk. Memory buffers allow fast data accessing for efficient video play-out. However, each **video frame** takes up a considerable amount of space for storage so that there is a limit to the number of **video frames** that can be feasibly stored in memory buffers. In contrast, the storage capacity of file...

... used to control the use of buffers efficiently as well as allow uninterrupted supply of **video frames** during virtual play-out. As the size of **audio data** is significantly less than **video data**, the **audio** buffer can be implemented using memory buffers directly. In this instance, the **audio data** are organised into slots of fixed sizes. Each slot size is equivalent to an uncompressed...

... detected. Redundant information transmitted in audio packets is used for audio packet lost replacement. Dynamic **video frames** reconstruction is used to cater for video packet lost replacement as well as low video...

... has been used for audio packet lost replacement. In this approach, each voice segment is **encoded** into two packets so that in the event of a packet lost, a duplicated **encoding** in the following packet can be played out. In order to reduce overheads owing to duplicate voice **encoding**, the first packet of a voice segment uses toll-grade compression, whereas the duplicated **encoding** of the same voice segment uses a simpler form of **encoding** to reduce the cost in both processing power and bandwidth. Hence, this implementation produces toll...

... is not present in the buffer, it will replace this lost packet with the redundant **audio information encoded** in the next packet. However, if consecutive packets are lost, no redundant **audio data** can be used to replace the missing links. When this happens, this period of time...  
... the Transmitter Module stops silent audio packets from being sent to the Receiver Module.

**19/3, K/2 (Item 2 from file: 15)**  
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02086587 62765612  
**Multimedia for the masses**  
Pecorella, David  
Telecommunications v34n10 PP: 88, 92 Oct 2000  
ISSN: 0278-4831 JRNAL CODE: TEC  
WORD COUNT: 1098

ABSTRACT: Consumers can now access broadcast-quality video at home thanks

to **MPEG-2**, intelligent ATM edge devices and DSL. The most commonly implemented technology used by telcos for core data transport is ATM, which can be carried over fiber. **MPEG-2** technology has emerged as the de facto compression standard for distributed entertainment-quality video...

TEXT: Once difficult to imagine, consumers can now access broadcast-quality video at home thanks to **MPEG-2**, intelligent ATM edge devices and DSL.

Widespread Internet proliferation has forced analog modem technology...

...pair wires. However, the technology exists today to provision video services in the form of **MPEG-2** video over this same infrastructure.

Traditional UTP local loops and the COs that terminated...

...a transport medium. The data traffic from multiple loops gets concentrated on DSLAMs (DSL access **multiplexers**), which are placed in the CO and sometimes even at the curb with a fiber...

...Broadcast quality video services can be requested by a user and delivered using packetized compressed video (**MPEG-2**) over ATM. The beauty in this scenario is that **MPEG** compression technology not only provisions video over relatively small bandwidth transport pipes, but is also...

...suited to using ATM. ATM acts as a transport medium for the convergence of voice, video and data, while DSL allows local access to ATM edge devices. ATM, **MPEG-2** and DSL act as complementary technologies to provide end-to-end multi media services.

### **MPEG-2 over ATM**

**MPEG-2** technology has emerged as the de facto compression standard for distributed entertainment-quality video. It efficiently compresses full motion video data for transmission over ATM networks. Full motion digitized and uncompressed NTSC-quality video requires a data transfer rate of roughly 240 Mbps. With little perceived degradation, **MPEG2** can crunch this down to 4 Mbps or 5 Mbps for distribution-quality video. One of the greatest synergies between **MPEG-2** encoded video and the ATM transport network lies in the fact that each of their respective bit structures is based on a **fixed length**. **MPEG-2** packets are comprised of fixed, 188-byte packets (184-byte payload plus four-byte link header). This makes the logistics mapping of **MPEG-2** transport over ATM simple: Two 188-byte **MPEG-2** packets with eight trailer bytes maps exactly into eight 48-byte ATM payloads.

In the case of **MPEG-2** video, the ATM edge device's ability to mitigate cell delay variation is of...

...data being transported and provision some function to manage each video stream's requirements. Getting **MPEG-2** onto ATM networks and then picking it off in good order takes some care. The ATM edge device must be adept at handling **MPEG** switching and jitter management to compensate for propagation delays in the network. Jitter management must include a combination of buffering, fixed-delay queuing, time stamping and steady rate outputting. Local **MPEG-2** video streams are typically transported using an interface known as DVB-ASI (digital video broadcast asynchronous serial interface). ATM edge devices deconstruct either an **MPEG-2** MPTS (multiprogram transport stream) or SPTS (single program transport stream) to the program level...

...PID (packet identifier) level.

At the PID level, different program streams can be reordered and **multiplexed** back into another MPTS. This process is referred to as remultiplexing. Each packet of **MPEG-2** data is tagged with a PID, a 13-bit

field that identifies the program..

... A PID can also reveal what type of information (e.g., program association tables, video, **audio** and **data**) is contained in the payload. The streams can then be segmented and placed on an... MPTS. Local service distribution networks can then send the video across the local UTP network. **MPEG** to the Home

With the mass deployment of cable modems and the increased demand for...

... is clear that DSL will be used as an access mechanism for video distribution. Powerful **MPEG**-2 compression algorithms, coupled with intelligent ATM edge devices, allow DSL providers to leverage existing...

**19/3, K/3 (Item 3 from file: 15)**  
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01965698 45483537  
**Long haul transmission**  
Bilmenfeld, Steven  
Broadcast Engineering v41n7 PP: 110-118 Jun 1999  
ISSN: 0007-1994 JRNLD CODE: BRG  
WORD COUNT: 1976

... TEXT: relay and SONET transport for large amounts of bandwidth.

ATM is a high-bandwidth, fast- packet switching technology based on **fixed-length** cells of 53 bytes that combines the statistical **multiplexing** efficiencies of packet-switching with the low delay characteristics of circuit switching technologies.

ATM service...

... PVCs with different information rates between locations.

ATM offers a single network design for all **data** needs (**audio**, **video** and **data**) and supports the concept of quality of service (QoS). ATM service supports the following QoS...  
... remote control of equipment through a single network connection. Also the LinkRunner TXA is an **MPEG**-2 ATM transport stream adapter, which allows network providers to map up to four **MPEG**-2 Transport Streams across an ATM or a point-to-point network. This flexible product... video stream. It features error detection and handling support and audio options with digital audio **synchronization** capability. The VPG8000 supports both interconnection channels and longitudinal timecode in addition to ancillary...

... and rates, and monitoring of SONET and ATM errors during transport.

The BBNC-2300N ATM **Multiplexer** from Broadband Networks Corp. enables the implementation of BBNC's video networking solution over standard ATM networks. The BBNC2300N provides the ability to **multiplex** up to nine **MPEG**-2 video streams onto a single ATM network interface compatible with the ATM Forum UNI...

... control and Simple Network Management Protocol (SNMP), a hard disk and a power supply.

Optional **multiplexing** redundancy may be implemented through the addition of a second set of **multiplexer** boards inserted in the same VME chassis. The resulting two ATM interface outputs (one from each set of **multiplexer** boards) are fed into a standard ATM switch. The BBNC-2300N **Multiplexer**

supports a variety of ATM physical interfaces, including DS3, OC3c, E3, and STM1.

The BBN-2300N implements a management information base to control ATM **MPEG**-2, and redundancy specific parameters. It can be managed by an off-the-shelf SNMP management station.

ECI Telecom's Hi-TV is a broadband ATM multiservice multiplexer (MPEG and ATM) and network terminal. It supports ATM UNI SVC and PVC (wide area ATM...).

... service.

WAM NET Inc. announced the availability of its compressed video delivery service. This new **MPEG**-2 video delivery solution is designed to integrate existing workflow and digital capabilities. **WAM NET**...

...be tailored to support customers' existing systems and production partner arrangements.

This service supports an **MPEG**-2 Video Recorder and Desktop Review Station to control recording and playback in a digital...

...WAM NET claims that incorporating the service into an existing workflow is simple with the **MPEG**-2 recorder connected to a video device or router. Review quality 4:2:0 **MPEG**-2 video is recorded at bit rates of 1.5 to 12Mb/s and transported using...

...over a high-speed, secure, private network. The desktop review station provides playback review quality 1**MPEG**-2 video on an NTSC/PAL monitor with the ability to select, play, store and... Innovacom showcased the TransPeg 500 ATM system which can be used to broadcast and record **MPEG**-2 (4:2:0 & 4:2:2) in point-to-multipoint configurations. Opticomm was showing its...

19/3, K/4 (Item 4 from file: 15)  
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01809862 04-60853

**STLs**

Blumenfeld, Steven; Thomas, David O  
Broadcast Engineering v41n3 PP: 150-154 Mar 1999  
ISSN: 0007-1994 JRNL CODE: BRG  
WORD COUNT: 1284

...TEXT: Light sources to transport light pulses over thin fibers made of glass or plastic. Video, **audio** or **data** signals can be easily transmitted using these systems. Fiber-optic systems offer the advantages of...

...and more facilities turn to standardized digital video technologies, the need to move audio and **video** **data** in real time is increasing. The increased requirements brought about by serial digital video (SDI...).

...count cells and report that information to an accounting system

ATM is based on small **packets** or cells with a **fixed length** of 53 bytes (48 bytes for payload and 5 bytes for header information) and a... 39Mb/s signals within a 25MHz STL channel. Another method digitizes the NTSC signal and **multiplexes** it with the ATSC signal. Each method has its pluses and minuses. Either way, it...you need to interface with a DS3 circuit. The GA-Link can also convert any **MPEG**-2 format to another.

The key point here is that your STL needs to provide...

19/3, K/5 (Item 5 from file: 15)  
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01703472 03-54462

### DTV multicasting

Isnardi, Michael

Broadcast Engineering v40n10 PP: 88-92 Sep 1998

ISSN: 0007-1994 JRNLD CODE: BRG

WORD COUNT: 1975

... TEXT: ATSC transmission system The video and audio elements of each TV program get compressed by **MPEG-2** and **AC-3 encoders**, respectively. These bit streams are mapped into **fixed-length** (188-byte) **packets** and are **multiplexed**, along with any associated data packets and a program map table (PMT), into a conceptual construct known as a single program transport stream. The PMT is required for **MPEG-2** systems compliance and indicates the packet IDs (PIDs) associated with each program element.

If the total bit rate for a single packet **multiplexed** program does not exceed 19.4Mb/s, additional programs or services may be multicast. Figure 2 shows several other single program transport streams **multiplexed** into a construct known as a multiple program transport stream. In order for the transmitted bitstream to be **MPEG-2** compliant, a program association table (PAT) must be sent. The PAT is a miniat ure...

... requires a more advanced program guide called program and system information protocol (PSIP) to be **multiplexed** into the stream as well. The decoder can ignore PAT and PMT and instead use...

... an RF amplifier/transmitter prepare the bits for transmission over the air.

### Multicasting from multiple encoders

In multicasting, compressed versions of more than one TV program are **multiplexed** into a single transmitted **MPEG-2** transport stream. The TV programs can be **encoded** independently using different **encoders** with different time bases; some programs might be **encoded** live, while others might be precompressed and played out of a server. In order to understand how this works, we need to learn a little about packets, timing and **multiplexing**.

We have seen that packets are the key to DTV's flexibility, extensibility and interoperability. For broadcast applications, short, **fixed-length** **packets** are used because they can be switched and error-corrected quickly and easily in hardware...

... other things, the type of data in the stream as well as presentation time stamps (PTS) and decode time stamps (DTS), which are important for AN **synchronization** in the decoder.

PES packets are further mapped into 188-byte transport packets. A transport ... recovers the 27MHz clock and re-creates a reference time base from the PCRs. The **PTS / DTS** time stamps are used for decoder timing and AN **synchronization**. Figure 3 shows PCRs inserted into a single program transport stream which consists of a...

... shows audio and video time stamps referring to the PCR time base for proper AN **synchronization**.

In multicasting, each program may contain its own, independent PCR time base; in other words, each **encoder** may have independent 27MHz clocks that do not need to be locked together. This allows mixing of programs that have

been compressed by different **encoders** at different times and at different locations. When a decoder switches to another program within...

...the new program

(Chart Omitted)

Captioned as: Figure. 1

(Chart Omitted)

Captioned as: Figure 2.

### Multiplexing video, audio, data and programs

Ultimately, we want to get a single bitstream that contains **multiplexed** packets from one or more TV programs. At first glance, it might seem that packets coming from all sources could be arbitrarily **multiplexed** together and the system should work. A little thought will reveal that this is not the case; in fact, packet **multiplexing** must adhere to a number of constraints. It would not be wise to transmit all...

...credits would roll before the opening theme music started. Instead, packets for each source are **multiplexed** in proportion to their instantaneous bit rate. For instance, if an SDTV video source is compressed to 7.68 Mb/s, and the associated six channels of audio are AC-3 compressed to 384kb/s, then roughly one audio packet will be **multiplexed** into the single program transport stream for every 20 packets of video. The device, or algorithm that schedules packet delivery is called the packet scheduler or transport **multiplexer**. The packet scheduler must monitor the buffer levels of a hypothetical decoder called the transport...

...browse and navigate through the brochure at your leisure. Figure 5 shows graphs of the **video** and **data** bit rates during the commercial segment, and reveals that 23MB of interactive brochure data was transmitted during the 30-second spot.

Statistical **multiplexing**: An area ripe for invention, this technique is starting to reap real gains for broadcasters. Statistical **multiplexing**, or stat muxing for short, exploits the fact that the video streams from different programs are generally uncorrelated. When several video streams are **encoded** jointly, it is rare that all streams become hard to code at the same time...

...rate, significant quality gains over CBR can be achieved by giving more bits to video **encoders** that need them. Thus, the bit-rate peaks of some streams coincide with the bitrate...

...stat mux controller will have to throttle back the bit rate on some or all **encoders**. Many stat mux algorithms have been invented - few do them well. Ask for a demo...

...programs together, and broadcasters may start to do this as the compression efficiency of HDTV **encoders** improve. Figure 6 shows a possible scenario in which one HDTV and zero, one or...

### 19/3, K/6 (Item 1 from file: 16)

DIGITAL File 16: Gale Group PROMT(R)

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08140081 Supplier Number: 66932467 (USE FORMAT 7 FOR FULLTEXT)

**Multimedia for the Masses. (Technology Information)**

Pecorella, David

Tel ecommunications, v34, n10, p88

Oct , 2000

Language: English Record Type: Fulltext Abstract

Document Type: Magazine/Journal ; Trade

Word Count: 1196

( USE FORMAT 7 FOR FULLTEXT)

#### ABSTRACT:

New technologies such as DSL, intelligent ATM edge devices and **MPEG** - 2 video compression are making broadcast-quality video over the Internet a reality for the...

... Consumers are demanding faster and faster data services, and the technology now exists to provision **MPEG** - 2 video services over an existing infrastructure of copper wiring. Getting access to large numbers...

... ATM, already used by most of the existing voice traffic in network fiber-optic cores. **MPEG** - 2 in turn has emerged as a de facto standard for distributing entertainment-quality video...

... structures. The ATM edge device must be able to mitigate cell delay variation, and moving **MPEG** - 2 onto and off of ATM networks will take some care. Powerful compression algorithms and intelligent devices let DSL providers leverage existing networks to bring **MPEG** video to the home.

#### TEXT:

Once difficult to imagine, consumers can now access broadcast-quality video at home thanks to **MPEG** - 2, intelligent ATM edge devices and DSL.

... pair wires. However, the technology exists today to provision video services in the form of **MPEG** - 2 video over this same infrastructure.

Traditional UTP local loops and the COs that terminated...

... a transport medium. The data traffic from multiple loops gets concentrated on DSLAMs (DSL access multiplexers), which are placed in the CO and sometimes even at the curb with a fiber...

... quality video services can be requested by a user and delivered using packetized compressed video (**MPEG** - 2) over ATM. The beauty in this scenario is that **MPEG** compression technology not only provisions video over relatively small bandwidth transport pipes, but is...

... suited to using ATM. ATM acts as a transport medium for the convergence of voice, video and data, while DSL allows local access to ATM edge devices. ATM, **MPEG** - 2 and DSL act as complementary technologies to provide end-to-end multi media services.

#### **MPEG** - 2 over ATM

**MPEG** - 2 technology has emerged as the de facto compression standard for distributed entertainment-quality video. It efficiently compresses full motion video data for transmission over ATM networks. Full motion digitized and uncompressed NTSC-quality video requires a data transfer rate of roughly 240 Mbps. With little perceived degradation, **MPEG** - 2 can crunch this down to 4 Mbps or 5 Mbps for distribution-quality video. One of the greatest synergies between **MPEG** - 2 encoded video and the ATM transport network lies in the fact that each of their respective bit structures is based on a fixed length. **MPEG** - 2 packets are comprised of fixed, 188-byte packets (184-byte payload plus four-byte link header). This makes the logistics mapping of **MPEG** - 2 transport over ATM simple: Two 188-byte **MPEG** - 2 packets with eight trailer bytes maps exactly into eight 48-byte ATM payloads.

In the case of **MPEG** - 2 video, the ATM edge device's ability to mitigate cell delay variation is of...

... data being transported and provision some function to manage each video stream's requirements. Getting **MPEG** - 2 onto ATM networks and then picking it off in good order takes some care. The ATM edge device must be adept at handling **MPEG** switching and jitter management to compensate for

propagation delays in the network. Jitter management must include a combination of buffering, fixed-delay queuing, time stamping and steady rate outputting. Local **MPEG-2** video streams are typically transported using an interface known as DVB-ASI (digital video broadcast asynchronous serial interface). ATM edge devices deconstruct either an **MPEG-2 MPTS** (multiprogram transport stream) or **SPTS** (single program transport stream) to the program level...

...P11) (packet identifier) level.

At the PID level, different program streams can be reordered and **multiplexed** back into another MPTS. This process is referred to as remultiplexing. Each packet of **MPEG-2** data is tagged with a PID, a 13-bit field that identifies the program...

...A PID can also reveal what type of information (e.g., program association tables, video, **audio** and **data**) is contained in the payload. The streams can then be segmented and placed on an then send the video across the local UTP network.

**MPEG** to the Home

With the mass deployment of cable modems and the increased demand for...

...is clear that DSL will be used as an access mechanism for video distribution. Powerful **MPEG-2** compression algorithms, coupled with intelligent ATM edge devices, allow DSL providers to leverage existing...

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03754738 Supplier Number: 45331529 (USE FORMAT 7 FOR FULLTEXT)

**GPS times isochronous ATM cells**  
Electronic Engineering Times, p54  
Feb 13, 1995

Language: English Record Type: Full Text  
Document Type: Magazine/Journal; Trade  
Word Count: 2154

...running clock pulses for a multimedia processors' phase-locked loop to produce video and audio **synchronization** signals.

Navigation, timing and telemetry data is transmitted in data frames by each satellite at...

...is converted down, via a mixer, to the desired local IF signal.

The **GPS** signal **correlator** demodulates and extracts the navigation, timing and telemetry data at 50 bits/s.

The **GPS** data processor records and interprets the **GPS** data and keeps the **GPS** signal **correlator** in phase with the received satellite signal. It also maintains the Universal Time Clock and...

...headers for transmission of video and audio frames that have been segmented.

When a complete **video frame** is written into the **video-frame** output data queue, the frame's byte count is written into the **video-frame** byte-count queue by the video processor. The time-stamp register is latched and is used by **video-frame** segmentation as the Universal Time Clock stamp, which is transmitted along with the segmented **video frame**.

**Video-frame** reassembly extracts the byte count and UTC from the received **video frame**. The raw **video data** is written into the **video-frame** input data queue.

AAL5 (ATM Adaptation Layer 5) is rapidly gaining acceptance for video-on-demand applications. It transmits constant-bit-rate (CBR) **MPEG-2** video, **audio** and **data**.

For AAL5 Payload Data Units (PDUs), the format is the same as that defined in...

...field is the Universal Time Clock stamp, which is transmitted along with the video and **audio data** frames.

If the system's real-time clock has a 1-ms granularity (incremented every...).

...method may work for CBR traffic, but may not be feasible for bursty LAN traffic.

**MPEG** standards define the data formats at the input to the decoder and how the decoder should interpret the data. **MPEG** standards do not define physical-layer attributes, such as modulation and error-correction schemes.

As such, **MPEG** systems standards provide two methods for **multiplexing** compressed video and audio and user data into a single compressed bit stream.

The program stream (PS), originally defined for **MPEG-1**, is optimized for error-free digital-storage applications, such as CD-ROMs. **MPEG-2** defined a new transport stream (TS) for more error-prone environments. Both of these...

...PES packets, which are formed by packetizing the continuous data generated by an elementary stream **encoder**, such as video- or audio-compression logic.

The program stream strings PES packets together along...

...selected to match a common disk-sector size (2 kbytes).

The transport stream uses a **fixed packet length** of 188 bytes. The smaller **packet** size is better suited for hardware-processing and error-correction schemes. The transport stream is...

...as cable television and public networks.

Since each PES has a unique packet ID, an **MPEG** decoder can quickly and easily find the desired program(s). A decoder would also be able to monitor multiple programs.

**MPEG** provides an accurate mechanism for correctly timing the decoding, decompression and display of video and...

...sample rates can also be recovered from this clock.

Time stamps are inserted by the **MPEG encoder** into the bit stream at adequate rates along with the video and audio data. The time stamps are extracted by the **MPEG** decoder from the bit stream and are used to perform various functions.

The transport stream...

...the program clock reference (PCR), the decoding time stamp (DTS) and the presentation time stamp (PTS). In the program stream the system clock reference (SCR) performs a similar function to the PCR.

The DTS notifies the **MPEG** decoder when data must be removed from its decoder buffer, preventing overruns and underruns. The PTS notifies the **MPEG** decoder when data must be displayed and guarantees **synchronization** between video and audio streams.

The PCR (or SCR) carries 42-bit time stamps of...

...local clock circuit to the same frequency as the STC.

If GPS is used with **MPEG encoding** and decoding, all time-stamp references should not have to be continuously transmitted. The **synchronization** function is performed by the GPS receiver at each end. The time-stamp references will...using the GPS time stamp. The end system does not have to rely on a **synchronized** ATM network to process isochronous video and audio data.

Since GPS provides a common universal...

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09644258 SUPPLIER NUMBER: 16821911 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**GPS timesynchronous ATM cells. (global positioning system) (Technology Trends: Communications Design) (Tutorial)**

Ear nest, Tim

Electronic Engineering Times, n835, p54(2)

Feb 13, 1995

DOCUMENT TYPE: Tutorial ISSN: 0192-1541 LANGUAGE: English

RECORD TYPE: Full text; Abstract

WORD COUNT: 2449 LINE COUNT: 00195

... ABSTRACT: by an ATM network to maintain a smooth flow of multimedia data. Typically, video and **audio data** sent via ATM cells become clumped, skewed and jittered and can arrive several hundred milliseconds...

... clock pulses, which allow a multimedia processor's phase-locked loop to generate audio and **video synchronization signals**.

... running clock pulses for a multimedia processor's phase-locked loop to produce video and audio **synchronization signals**.

Data frames

Navigation, timing and telemetry data is transmitted in data frames by each...

... is converted down, via a mixer, to the desired local IF signal.

The **GPS** signal **correlator** demodulates and extracts the navigation, timing and telemetry data at 50 bits/s.

The **GPS** data processor records and interprets the **GPS** data and keeps the **GPS** signal **correlator** in phase with the received satellite signal. It also maintains the Universal Time Clock and...

... is rapidly gaining acceptance for video-on-demand applications. It transmits constant-bit-rate (CBR) **MPEG-2** video, **audio** and **data**.

For AAL5 Payload Data Units (PDUs), the format is the same as that defined in... field is the Universal Time Clock stamp, which is transmitted along with the video and **audio data** frames.

If the system's real-time clock has a 1-ms granularity (incremented every...

... method may work for CBR traffic, but may not be feasible for bursty LAN traffic.

**MPEG** standards define the data formats at the input to the decoder and how the decoder should interpret the data. **MPEG** standards do not define physical layer attributes, such as modulation and error-correction schemes.

As such, **MPEG** systems standards provide two methods for **multiplexing** compressed video and audio and user data into, a single compressed bit stream.

The program stream (PS), originally defined for **MPEG-1**, is optimized for error-free digital-storage applications, such as CD-ROMs. **MPEG-2** defined a new transport stream (TS) for more error-prone environments. Both of these...

... PES packets, which are formed by packetizing the continuous data generated by an elementary stream **encoder**, such as video- or audio-compression logic.

The program stream strings PES packets together along...

... selected to match a common disk-sector size (2 kbytes).

The transport stream uses a **fixed packet length** of 188 bytes. The smaller **packet** size is better suited for hardware-processing and error-correction schemes. The transport stream is...

... as cable television and public networks.

Since each PES has a unique packet ID, an **MPEG** decoder can quickly and easily find the desired program(s). A decoder would also be able to monitor multiple programs.

**MPEG** provides an accurate mechanism for correctly timing the decoding, decompression and display of video and...

...sample rates can also be recovered from this clock.

Time stamps are inserted by the **MPEG encoder** into the bit stream at adequate rates along with the video and audio data. The time stamps are extracted by the **MPEG** decoder from the bit stream and are used to perform various functions.

The transport stream...

...the program clock reference (PCR), the decoding time stamp (DTS) and the presentation time stamp (PTS). In the program stream the system clock reference (SCR) performs a similar function to the PCR.

The DTS notifies the **MPEG** decoder when data must be removed from its decoder buffer, preventing overruns and underruns. The PTS notifies the **MPEG** decoder when data must be displayed and guarantees **synchronization** between video and audio streams.

The PCR (or SCR) carries 42-bit time stamps of...

...local clock circuit to the same frequency as the STC.

If GPS is used with **MPEG encoding** and decoding, all time-stamp references should not have to be continuously transmitted. The **synchronization** function is performed by the GPS receiver at each end. The time-stamp references will...using the GPS time stamp. The end system does not have to rely on a **synchronized** ATM network to process isochronous video and audio data.

Since GPS provides a common universal...

...Applications," University of Southern California SNET course, August 1994.

(4.) International Standards Organization, "Coding of Moving Pictures & Associated Audio for Digital Storage Media," Part 1: Systems, ISO/IEC 11172-1:1993(E)

(5.) International Standards Organization, "Generic Coding of Moving Pictures & Associated Audio Information," Part 1: Systems, ISO/IEC DIS 13818-1:6/30/1994.

19/3, K/9 (Item 1 from file: 636)  
DIGLOG(R) File 636: Galle Group Newsletter DB(TM)  
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03515174 Supplier Number: 47260661 (USE FORMAT 7 FOR FULLTEXT)  
Preparing Businesses For Multimedia's Arrival By Judy Estrin, Founder & CEO, Precept Software Inc..

Multimedia Monitor, v15, n4, pNA  
April 1, 1997

Language: English Record Type: Full Text  
Document Type: Newsletter; Trade  
Word Count: 1528

...enriched communication, bringing images and spoken words directly to our eyes and ears. At the **same time**, the pervasiveness of IP-based **packet** networks has enabled users to share information easily and efficiently across local and wide areas...

...They, and others yet to be conceived, are propelling the move from analog to digital **audio / video information**. Digital representation not only allows audio/video to be combined with other data types in...

...to-use authoring tools; and standards such as Video for Windows and

various compression techniques (MPEG, H.261, Indeo).

But at present these applications generally remain limited to accessing data on... standard interfaces. Standard compression techniques such as H.261 (from the International Telecommunications Union) and **MPEG** (from the Motion Picture Experts Group) have also emerged.

Second, all the requirements for multimedia...

...than hardware, and allows users to upgrade more easily to new features. Even if an **MPEG** or ATM card costs only a few hundred dollars, that cost is multiplied by hundreds...

...multicast capability, real-time data transport, quality-of-service guarantees, support for data compression and **synchronization** of multiple data streams. Some of these features are required only in the host or...

19/3, K/10 (Item 1 from file: 647)  
DIGITAL File 647: CMP Computer Full text  
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01043248 CMP ACCESSION NUMBER: EET19950213S0055

GPS times isochronous ATM cells (Inside)  
TIME EARNEST ENGINEERING SUPERVISOR AT&T GLOBAL INFORMATION SOLUTIONS  
ROSEVILLE, MN.

ELECTRONIC ENGINEERING TIMES, 1995, n 835, PG54

PUBLICATION DATE: 950213

JOURNAL CODE: EET LANGUAGE: English

RECORD TYPE: Full text

SECTION HEADING: news

WORD COUNT: 2154

...freerunning clock pulses for a multimedia processors' phase-locked loop to produce video and audio **synchronization** signals.

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The GPS signal **correlator** demodulates and extracts the navigation, timing and telemetry data at 50 bits/s.

The GPS data processor records and interprets the GPS data and keeps the GPS signal **correlator** in phase with the received satellite signal. It also maintains the Universal Time Clock and...

...headers for transmission of video and audio frames that have been segmented.

When a complete **video frame** is written into the **video-frame** output-data queue, the frame's byte count is written into the **video-frame** byte-count queue by the video processor. The time-stamp register is latched and is used by **video-frame** segmentation as the Universal Time Clock stamp, which is transmitted along with the segmented **video frame**.

**Video-frame** reassembly extracts the byte count and UTC from the received **video frame**. The raw **video data** is written into the **video-frame** input data queue.

AAL5 (ATM Adaptation Layer 5) is rapidly gaining acceptance for video-on-demand applications. It transmits constant-bit-rate (CBR) **MPEG-2** video, **audio** and **data**.

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